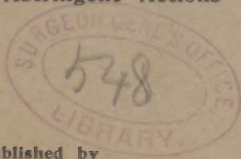


FORMULARY

OF

Ehtyol

With CLINICAL REPORTS on its
Alterative, Analgesic, Antiphlo-
gistic, Antipruritic, Antiseptic,
and Astringent Actions



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300

APPROVED FORMULAS

FOR

ICHTHYOL THERAPY.



INTRODUCTION

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INTRODUCTION.

Among the medicines which, from antiquity, have been used both internally and externally, and regarded as possessing a specific effect in certain dermatoses, sulphur holds a high rank. In rheumatism and similar disorders, although most of the new synthetic antipyretics have been recommended for their symptomatic treatment, sulphur preparations have always maintained a permanent value of their own.

By the introduction of **Ichthyol**—a *Natural Soluble Sulphur Compound*—into medical practice in recent years, an evident want was filled; and to this fact must be ascribed the universal attention which this drug continuously attracted in the medical world, from its introduction down to the present day.

Physical and Chemical Nature.

The source of **Ichthyol** is a bituminous mineral found in Tyrol; the substance is rich in the fossilized remains of fish and marine animals, from which circumstance its name is derived. The dry distillation of this mineral yields an oil containing about 10 per cent. of sulphur *in chemical combination*, which, by special treatment with sulphuric acid, is converted into a sulphonate. By neutralization of the latter with alkalis the corresponding Ichthyol salts are obtained, of which the principal ones are the **Ichthyol-Ammonium**— $C_{28}H_{36}S_2O_6(NH_4)_2$ —and the **Ichthyol-Sodium**— $C_{28}H_{36}S_2O_6Na_2$.

The prominent feature of these preparations is their richness in sulphur, which, according to Prof. Baumann and Dr. Schotten, is combined partly with oxygen, partly with carbon, in a condition similar to that in mercaptans and organic sulphides. In this pecu-

liarity of its chemical constitution, Ichthyol possesses a great advantage over the old galenical sulphur preparations formerly employed, as well as over the recent so-called "substitutes" for Ichthyol, in all of which the sulphur element is artificially introduced, while in Ichthyol it is naturally combined.

Ichthyol has a reddish-brown color and a bituminous odor and taste. The sodium salt is semi-solid, whereas the ammonium salt is of a syrupy consistence and therefore mostly preferred. Ichthyol is readily and completely soluble in water, and likewise in a mixture of equal parts alcohol and ether; it also mixes well with vaselin, lanolin, and glycerin, and with all fats and oils.

As several different salts of Ichthyol are prepared, it is advisable to specify *which is wanted*. In the absence of any such specification it is to be assumed that the Ammonium salt is intended for, being used most largely, this particular salt is commonly, in medical and pharmaceutical language, called simply "*Ichthyol*."

Ichthyol Therapy.

From the researches of Prof. Zuelzer, Dr. Charles, Prof. Reale, Dr. Damiens, Prof. Unna, Dr. Helmers, Drs. Fessler, Klein, Latteux, Prof. Neisser, Dr. Abel, and others (more fully abstracted in "REPORTS ON ICHTHYOL" herewith), it appears that the following are notable and constant characteristics of the effects of the drug on the animal or human subject:

I.—INTERNALLY.

Ichthyol is almost invariably well taken and well borne. In spite of its peculiar odor, it occasions no nausea, nor any disinclination toward continued administration.

It builds up the albuminoid elements of the organism and the total body-weight in malnutrition or emaciation, by favoring the assimilation and retarding the disintegration of the nitrogenous substances.

It is *quite harmless*. Repeated experiments showed that daily doses, given to dogs, of twenty times the largest amount usually employed in human medication, produce only a transient diarrhoea; while twelve-fold the largest regular medicinal dose produces no disturbance whatever.

Subcutaneously administered, it lowers the rectal temperature for about an hour, after which the normal is re-established.

II.—TOPICALLY.

Ichthyol acts primarily as an abstractor of oxygen from the tissues, producing thereby a marked diminution of any inflammation or local congestion present (of heat, swelling, redness, and pain alike).

It is a perfect contractor and granulator in simple wounds, and its action is equally favorable in extensive burns of the first and second degree.

III.—BACTERICIDALLY.

Ichthyol acts as a bactericide directly in cultures of the micro-organisms of suppurative and other parasitic processes. This character of **Ichthyol**, as primarily demonstrated by systematic culture experimentation, has received ample clinical indorsement by its noted remedial or beneficial action in erysipelas, typhus, ozæna, etc., as well as by its prophylactic use, at least in diphtheria.

Therapeutical Uses.

The therapeutic action of **Ichthyol** may be conveniently regarded as divisible into the following factors, namely :

- | | |
|--|---------------------------------------|
| (1) Its reducing property and its contractile effect upon vascular tissue— | } In both internal and external uses. |
| (2) Its antiparasitic action— | |
| (3) Its antiphlogistic effect— | |
| (4) Its regulating influence on the bowels— | } When taken internally. |
| (5) Its promotive action on nutrition generally— | |

All these will be illustrated numerously in the following **FORMULARY**, so that detailed reference to them here is not needed. It is, however, essential to a proper understanding of the extremely numerous and manifold applications of **Ichthyol**—which at first led to some suspicion that it was being “boomed” as a panacea—to know that they all depend upon one or more of the above-named factors. Surprise ceases at the long list of affections, seemingly so

diverse, against which Ichthyol has been recommended and successfully used, when it is remembered how large a number of cutaneous and other diseases depend more or less upon hyperæmia and enlargement of capillaries, and consequent inflammation, or upon indigestion or malnutrition.

The very number and great diversity of these diseases, in which the recorded experience of the value of **Ichthyol** has received the sanction of the medical world, cause the testimony published thereon to aggregate to such a considerable volume that even the briefest possible condensed abstract and selection therefrom—to be anything like fairly typical or representative—would far exceed the convenient dimensions of the little pocket *vade mecum* herewith submitted.

In order, however, not to withhold from the reader's cognizance the various *specific methods and combinations* found useful by eminent practitioners all over the globe, in the administration and application of Ichthyol, an Appendix has been provided, under the title of "MEDICAL AND SURGICAL REPORTS ON ICHTHYOL," which will be found on pages 67 to 118 of this pamphlet, and which contains a few of the most notable of the many hundreds of scientific and practical publications that have appeared in therapeutic literature on the subject of ICHTHYOL.

The "BIBLIOGRAPHY" given at the end of this book will enable the reader to trace the sources of a number of highly valuable scientific and clinical papers on ICHTHYOL THERAPY published in recent years, *besides* the ones herein abstracted.

MERCK & Co.

THE ICHTHYOL FORMULARY.

Acne.

1.—Ichthyol

Distilled Water, Equal parts
Rub in before retiring; wash
off in the morning with
warm soap-water. During
the day use a weak solu-
tion of mercury bichloride.
[UNNA.]

1a.—Ichthyol..... 500 parts
Pea Flour 200 parts
Distilled Water. 100 parts
Lanolin.... 100 parts
Oil Almonds.... 100 parts
Mercury Bichloride 1 part
Paste! Apply at night.
[UNNA.]

2.—Ichthyol..... 1 part
Ether 7 parts
Brandy 7 parts

Apply evenings by means of a brush. Mornings, abla-
tions with Ichthyol soap, or with superfatted resorcin-
sulphur soap. [JANOVSKY.]

3.—Ichthyol..... 5 parts
Salicylic Acid. 5 parts
Soft-Soap 3 parts
Lanolin 27 parts
Ointment! Apply evenings.
[EICHHOFF.]

After bathing the parts 'or a
short time each night with
soap and water, or previous
employment of an exfolia-
tive paste, 20% Ichthyol solu-
tion acts more certainly in
bringing about a smoothing
of the skin of the face.
[SCHWIMMER.]

(See details, page 87.)

4.—Ichthyol .. 10 to 20 parts
Soft-Soap.... 10 to 20 parts
Lanolin 20 parts
If indicated, add Ammoniat-
ed Mercury, 1 to 2 parts.
Rub in at night; wash off in
the morning with warm
soap-water. During the day
rub in cold-cream, vaselin,
or the like.
(In severe forms of acne.)
[HEUSS.]

4a.—Ichthyol..... 1 part
Zinc Oxide..... 2 parts
Wheat Starch.... 2 parts
Lard..... 4 parts
Apply evenings, after expres-
sing the pustules and wash-
ing with 1% corrosive-sub-
limate solution.
[HEUSS]

Acne.—Continued.

5.—Ichthiol	4 parts
Salicylic Acid	1 part
Precipitated Sulphur	6 parts
Wheat Starch	20 parts
Zinc Oxide	20 parts
Vaselin	46 parts
Face paste!	[V. SEHLEN.]

6.—Ichthiol	1 part
Vaselin	40 parts
Ointment! Rub in at night; wash off in the morning with warm soap-water.	[BERTARELLI.]

6a.—Ichthiol	
Vaselin	
Lanolin	Equal parts
Ointment! Rub in at night; wash off in the morning with warm soap-water.	
This formula is also appropriate for use twice daily in scrofulous glandular swellings.	
	[BERTARELLI.]

7.—Ichthiol	1 part
Soft-Soap	2 parts
Ointment! Rub in at night until absorbed; wash off in the morning with warm soap-water. If the skin is irritated too much, suspend and rub in 5 to 10% Ichthiol-vaselin ointment.	
	[BERTARELLI.]
8.—Ichthiol	1 part
Bismuth Subnitrate	1 part
Ammoniated Mercury	1 part
Vaselin	10 parts
Ointment! Apply freely before retiring.	
(In large acne pustules.)	[FOURNIER.]

Acne Rosacea.—See also Rosacea.

9.—Ichthiol	1 part
Distilled Water	2 parts
15 to 20 drops daily, gradually increasing. To be taken in water, mornings and evenings, associated with the external treatment as in acne.	

N. B.—As the taste is not disagreeable, the patient's aversion to the odor is overcome in from 2 to 3 days in all cases, especially if the drops are freely diluted with water and taken on rising and retiring.

[JAMIESON; GADDE; RABOW; UNNA; FOURNIER.]

Acne Rosacea.—*Continued.***10.—Ichthyol.** 4 gr. (0.25 Gm.)

Dispense in capsule.—3 to 4 such daily.

[NEISSER; FOURNIER;
TOBOLD.]**11.—Ichthyol.**q. s.

Paint on at night; wash off in the morning with warm water and soap; then apply some form of dusting-powder.

[NEISSER; HEUSS.]

12.—Ablutions with Eichhoff's superfatted **salicyl-ichthyol** soap.

[EICHHOFF; PETELLA.]

13.—Ichthyol... 1 to 10 parts
Oil Sweet Almonds10 parts
Inunction! Begin with the weakest mixture, and gradually increase.

[MOREL-LAVELLÉE.]

14.—Ichthyol	2 parts
Precipitated Sulphur	3 parts
Zinc Oxide	10 parts
Wheat Starch	10 parts
Vaseline.....	22 parts

Ointment! Rub in night and morning.

[V. SEHLEN.]

In addition, the following internally:

14a.—Ichthyol...... 1 part

Distilled Water..... 2 parts

Begin with a few drops (2 to 3) once or twice daily; then increase until 100 drops daily are reached. Suspend for a few days as the occasion requires.

[V. SEHLEN.]

Alcoholism, Chronic.**15.—Ichthyol.**..... 1 part

Distilled Water..... 2 parts

10 to 15 drops 3 times a day. (Especially in tremors)

[GADDE; V. SEHLEN; UNNA.]

Amenorrhœa.**16.—Ichthyol Pills,** 1½ gr. (0.1 Gm.),

S. C.....No. 100

2 pills 3 times daily.

[KOETSCHAU.]

Angina Catarrhalis.

17.—Ichthyol..... 2 to 5 parts

Distilled Water..... 150 parts

Gargle !

(In angina catarrhalis, laryngitis, pharyngitis and bronchial asthma.)

[GOLL ; HERZ ; PETELLA ; TOBOLD.]

Anemia.—See Chlorosis.

Anthrax.—See also Furunculus.

18.—Ichthyol..... 4 parts

Cerate Camphor..... 15 parts

Ointment !—Spread on 3 times daily, and cover with sterilized cotton. The developing suppurative points exude foetid touch with silver nitrate ; then continue the ointment.

[FELIX ; PETELLA.]

Arthritis, Acuta et Chronica.—See also Rheumatism.

19.—Ichthyol..... 1 to 5 parts

Distilled Water..... 9 to 5 parts

Externally, by means of constantly moist dressings !

(In muscular rheumatism, acute arthritis, lumbago, sciatica, the *douloureux*, gout, migraine.)

[GADDE ; UNNA ; UNTERBERGER ; LANGE.]

20.—In chronic rheumatoid arthritis with fresh, painful swellings, in muscular rheumatism (lumbago, etc.), employ embrocation with 10 to 30 alcohol saturated **Ichthyol** solution twice daily ; or, in great sensitiveness of the skin, with 10% Ichthyol ointment. Cover with 20% Ichthyol cotton.

For protracted internal use employ the following :

Pills, Ichthyol-Sodium, 1½ gr. (0.1 Gm.)

S. C.....No. 100

3 to 6 daily.

[EULENBURG ; TOBOLD.]

Arthritis, Acuta et Chronica.—*Continued.*

21.—Ichthyol-Sodium,
 Olive Oil..... 1 part
 3 parts
 Externally! Rub in thickly,
 cover with cotton, and ban-
 dage firmly.
 (In acute arthritis.)
 [PETELLA.]

22.—Ichthyol-Sodium,
2 gr. (0.13 Gm.)
Sodium Salicylate,
2 gr. (0.13 Gm.)
For 1 capsule or pill ! 8 to 10
daily, 2 hours after meals.
(In chronic articular rheu-
matism.)
[BIEDERT ; TOBOLD ;
V. SEHLEN.]

23.—Ichthyol..... 5 parts
Salicylic Acid... 1 part
Collodion 50 parts
Castor Oil..... 5 parts
Externally ! Paint the joints
night and morning.
(In chronic articular rheuma-
tism. [UNNA.]

24.—Ichthyol q. s.
Apply to the affected joints by
means of a brush; wrap in
cotton.
(In acute articular rheuma-
tism confined to one or two
joints.)
[RABOW.]

25. — Gouty, non-inflammatory swellings are soon reduced when anointed with pure **Ichthyol**, and then treated with the electrode of the constant current, on the neck, arm, or leg. The positive electrode in a warm hand- or foot-bath of a 5 to 10% solution of Ichthyol acts more discutient in general swelling.

[V. HOFFMANN.]

26.—Icthyol..... 8 parts
Chloroform 1 part
Alcohol 4 parts
 Embrocation ! Envelop part in cotton-wool.
 (In muscular rheumatism, acute and chronic arthritis.)
[GUALDI.]

27.—Ichthjol
Soft-Soap Equal parts
In acute arthritis (especially of the hands and feet).
Freshly triturated, applied freely and covered with
cotton-wool, once or twice daily, this acts as an anodyne.
[V. HOFFMANN; LANGE.]

N. B. In rheumatism and gout, in addition to the external treatment, the internal administration of Ichthyol, either in water, pills, or capsules, will act most conduively.

Asthma, Bronchial.

28. Ichthyol internally in solution, capsules, or pills.

To be tried in every case. Always indicated when potassium iodide is not tolerated, or alternated with this, the Ichthyol given continuously and the iodide at the periods of increased attacks. When bronchial asthma is complicated with pruriginous eczema, the continued use of Ichthyol acts very beneficially upon the latter.

[UNNA ; TOBOLD.]

Auto-Intoxication, in Gastric and Intestinal Affections.

29.—Ichthyol,

1½ gr. (0.1 Gm.)

For 1 capsule! 1 to 2 capsules 3 times a day.

[PICK.]

30.—Ichthyol Pills, 1½ gr.

(0.1 Gm.), s. c... No. 100

1 to 3 pills 3 times a day, after meals.

[PICK.]

Balanitis.

Ablations with superfatted 10% **Ichthyol** soap.

[V. SEHLEN.]

Blennorrhœa.—See Gonorrhœa.

Blepharitis Ciliaris Ectropion.

31.—Ichthyol 3 to 5 parts

Zinc Oxide..... 100 parts

Wheat Starch 100 parts

Vaseline..... 250 parts

Eye salve! Apply night and morning.

[V. SEHLEN.]

Bubo.

After incision, cover with 20 or 50% **Ichthyol** cotton-wool.

[V. SEHLEN.]

Burns.

32.—Ichthyol 2 to 5 parts
 Distilled Water..... To make 30 parts
 Externally! Envelop the part with soft mull bandage
 kept constantly moistened with the solution.
 [PETELLA; UNNA.]

33.—Ichthyol q. s.
 Paint!
 (In burns of the first degree; also useful in burns generally
immediately after occurrence.)
 [PETELLA; UNNA; LANGE.]

34.—Ichthyol
 Zinc Oxide
 Vaseline Equal parts
 Externally. [CHATELAIN.]

Bursitis Prepatellaris.

35.—Ichthyol 1 part
 Spirit Ether.... 2 parts
 Collodion 2 parts
 Paint! Also recommended in glandular intumescence,
 varices funiculitis.
 In many cases pure Ichthyol is also indicated.
 [KURZ.]

Carcinoma Uteri, Inoperable.

36.—Ichthyol..... q. s. **36a.—Ichthyol,**
 Apply freely several days after 3 gr. (0.2 Gm.)
 curetting. Cacao Butter,
 [HERRMANN.] To make 1 suppository
 1 suppository when pain is
 present. [HERRMANN.]

37.—Tampons with 10% Ichthyol-glycerin.
 For palliative treatment of cancer of the cervix.
 [DOBRONRAVOW; BELL.]

Catarrhus Gastricus.

38.—Ichthyol..... 4 gr. (0.25 Gm.)
For 1 capsule! 1 every 3 hours, increased until 10 are
taken in 24 hours.

Or :

39.—Ichthyol Pills, 1½ gr. (0.1 Gm.),
S. C No. 100
2 every 3 hours, increased until 20 are taken in 24 hours.

Or :

40.—Ichthyol
5 to 10 drops, in milk, infusion of orange flowers, or
peppermint water, before each meal.
(In acute gastric catarrh.) [LANGE; GADDE; PETELLA.]

41.—Capsules, Ichthyol, 4 gr. (0.25
Gm.) No. 40
1 to 2 three times daily.
(In chronic gastric catarrh.) [LANGE.]

Catarrhus Intestinalis, Chronicus.

42.—Ichthyol..... 1 part
Distilled Water 2 parts
10 drops in water 3 times a day, 1 to 2 hours before meals,
gradually increasing the dose to threefold.
(In gastric and intestinal disturbances, chronic obstipa-
tion, in deficient or disturbed menstruation ; also, to
combat congestive dermatoses.) [V. SEHLEN.]

Catarrhus Cervicis, Acutus et Chronicus.— Compare Erosiones portion. vag., and Metritis ; also Endometritis.

Catarrhus Vesicæ Urinariæ.

43.—Ichthyol..... 15 min. (1 c c.)
Distilled Water To make 3 fl. oz. 9 c c.
Dilute with warm distilled water, and use for bladder
irrigation. [PAWLIK.]

Catarrhus Vesicæ Urinariæ.—*Continued.*

44 —Ichthyol	15 parts
Lanolin	17 parts
Vaseline.....	17 parts

Ointment!

(For external application during the febrile period, for reduction of the intense pain, and thereby to facilitate the internal antipyretic treatment.)

After cessation of the febrile period use :

44a. Irrigation of the bladder with $\frac{1}{2}$ watery **Ichthyol** solution (aq. font. coct.), warmed to 86 Fahr., by means of an elastic double-flow catheter connected with an enteroclysm. Inject slowly and with great caution, to the amount of 1 quart, in the early stages, twice daily. Later, but once a day. In acute cystitis. In chronic cases these irrigations are to be given with a 1% Ichthyol solution, and but once daily.

[VILLETTE.]

Chilblains.—See Perniones.

Chlorosis.

45.—Ichthyol-Sodium	5 Gm. (1 fl. dr.)
Distilled Water.....	95 Gm. (3 fl. oz.)
Oil Peppermint.....	2 drops
10 to 30 drops 4 times a day.	

[SCHUETZE.]

Cholera Infantum.

After previous use of calomel for 1 day, employ :

46.—Ichthyol-Sodium	1 part
Distilled Water	15 parts
3 drops every 2 hours.	

[SCHUETZE.]

Coccydynia.—See Sciatica.

Colpitis.—See Vaginitis.

Condylomata Acuminata.

47.—Ichthyol-Zinc	q. s.
Distilled Water ..	To make a thin paste
Paint!	[PETELLA ; DOBRONRAVOW.]

Conjunctival Eczema.

- 48.—Ichthyol** 1 part
 Wheat Starch..... 20 parts
 Zinc Oxide..... 20 parts
 Vaseline..... 50 parts
 Ointment! Rub into the eyelids at night, and cover with
 Zinc-Ichthyol salve-mull. [V. SEHLEN.]

Contusions, etc.

- 49.—Ichthyol** 1 part
 Absolute Alcohol 2 parts
 Ether..... 2 parts
 Externally! [GADDE.]
- 50.—Ichthyol-Zinc** 1 part
 Flexible Collodion. 4 parts
 Paint twice a day; next day
 wash off with ether, then
 paint again. [UNNA.]

- 51.—Ichthyol** 1 part
 Distilled Water..... 9 parts
 Moisten frequently a permanently fixed bandage which
 firmly envelops the affected part of an extremity;
 cover with gutta-percha tissue. [UNNA; PETELLA.]

Coryza.

- 52.—Ichthyo**..... 20 parts
 Petrolatum..... 100 parts
 Cumarin..... 1 part
 Smear the nose internally by
 means of a twisted linen
 cloth, and anoint the nose
 externally, rubbing in well.
 [PETELLA.]
- 53.—Ichthyol** 1 part
 Zinc Oxide..... 10 parts
 Wheat Starch... 10 parts
 Vaseline 24 parts
 Spread upon the internal sur-
 face of the nose.
 (In chronic coryza.) [V. SEHLEN.]

Coxalgia and Coxitis.—See Arthritis.

Cystitis.—See Catarrhus Vesicæ Urinariæ.

Dandruff.—See Pityriasis Capitis.

Decubitus.

At the outset (redness), wash frequently with superfatted
Ichthyol soap.

In ulceration, use :

54.—Ichthyol..... 1 to 2 parts
Petrolatum or Lanolin. 10 parts
Ointment! [LANGE.]

Deodorization and Disguising the Taste of Ichthyol.

(a) For external use :

Oil Citronella
Oil Eucalyptus..... Equal parts

Or :

Ichthyol..... 9 parts
Oil Turpentine..... 1 part

(b) For internal use :

Ichthyol..... 5 to 8 parts
Peppermint Water..... 80 parts
Syrup..... 20 parts

Or :

Ichthyol..... 30 to 60 parts
Oil Peppermint..... 1 part
Absolute Alcohol..... 10 parts
Distilled Water..... 100 parts

Dermatitis Pustulosa.

55.—Ichthyol..... 1 part
Vaselin' 8 parts

Apply twice daily, after previous washing with warm
water and evacuation of the pustules by scarification.
[FOURNIER.]

Diabetes Mellitus.

56.—Capsules, Ichthyol-Sodium,
4 min. (0.25 Gm.).....No. 40

2, 3, or 4 capsules 4 times a day, especially when gastric
catarrh and intestinal disturbance are present.

[GADDE.]

Diphtheria.**57.—Ichthyol**

Distilled Water.. Equal parts
Paint every half-hour.

At the same time use :

58.—Ichthyol-Sodium 1 part
Peppermint Water 10 parts
Teaspoonful every hour.

Distortions.—See Contusions.

Dipsomania.—See Alcoholism, Chronic.

Eczema.

Here, as in the majority of skin affections for which Ichthyol is appropriate, the internal use of Ichthyol is also indicated.—(See, also, *details*, pages 83 and 84.)

59.—Ichthyol

Distilled Water
Lanolin
Vaselin Equal parts
Ointment!
[GADDE ; UNNA ; LANGE.]

60.—Ichthyol 1 part

Zinc Oxide 10 parts
Talcum 10 parts
Vaselin 20 parts
[GADDE ; UNNA ; HEUSS ;
LANGE.]

61.—Ichthyol 1 part

Lanolin 4 parts
Vaselin 4 parts
Chrysarobin 1 part
Ointment !
(In circumscribed chronic eczema.)
[GADDE ; UNNA.]

62.—Ichthyol, 2 to 5%, to Zinc
Ointment, Zinc Oxide, Lead
Paste, Hebra's or Wilkin-
son's Ointment.

[GADDE ; UNNA ; PETELLA.]

63.—Ichthyol-Zinc. 1 part

Glycerin 5 parts
Dissolve by aid of gentle heat.
Paint on 3 times a day and
cover with gutta-percha
tissue ; in the morning a
soap bath or soap ablutions ;
in addition, internally, 5-10
pills of 0.1 Gm. (1½ minim)
content daily. [GADDE.]

64.—Ichthyol 1 part

Diachylon Oint-
ment (Hebra)... 9 parts
Embrocation !
(In complication with furun-
culosis.)

[GADDE ; UNNA.]

Eczema.—*Continued.*

- 65.—Ichthyol** 5 parts
 Resorcin (or pyro-
 gallol or chrys-
 arobin)..... 5 parts
 Salicylic Acid 2 parts
 Lanolin 40 parts
 Vaseline 60 parts
 Ointment !

[V. SEHLEN.]

- 67.—Ichthyol** 2 parts
 Salicylic Acid 1 part
 Resorcin..... 1 part
 Lanolin 25 parts
 Vaseline..... 25 parts
 Zinc Oxide 25 parts
 Powdered Starch 25 parts

Paste !

[JAMIESON.]

- 68.—Ichthyol**... 2 to 5 parts
 Zinc Oxide... 10 parts
 Wheat Starch 10 parts
 Vaseline 20 parts
 Zinc-Ichthyol paste !

[V. SEHLEN.]

- 70.—Ichthyol**..... 2 parts
 Zinc Oxide..... 10 parts
 Wheat Starch ... 10 parts
 Glycerin Oint-
 ment.....25 to 45 parts

Externally !

[V. SEHLEN.]

- 72.—Ablutions** with super-
 fatty, neutral or alkaline tar-
 soap of Dr. Eichhoff.

[EICHHOFF.]

- 74.—Ichthyol**... 1 to 2 parts
 Vaseline. To make 20 parts
 Rub in once or twice daily in
 acute eczema.

[BERTARELLI ; PETELLA.]

- 66.—Ichthyol** .. 1 to 2 parts
 Distilled Water,

To make 10 parts
 Paint as often as the skin is
 wet, according to require-
 ments, once or twice daily.
 If scales are present they
 must be removed before
 painting.

[HERZ.]

- 69.—Ichthyol** 1 part
 Zinc Oxide 10 parts
 Wheat Starch ... 10 parts
 Vaseline 24 parts

Rub in night and morning.

[V. SEHLEN.]

- 71.—Ichthyol** 1 part
 Precipitated Sul-
 phur 1 part
 Vaseline..... 10 parts
 Lanolin 10 parts

Ointment !

(Inunction in squamous
 eczema of the face.)

[E. CHATELAIN.]

- 73.—Ichthyol**..... 1 part
 Benzoated Zinc
 Ointment..... 10 parts
 Ointment !

[GADDE ; UNNA ; HEUSS.]

- 75.—Ichthyol**... 1 to 8 parts
 Vaseline....Up to 10 parts
 Rub in once or twice daily in
 chronic eczema.

[BERTARELLI ;
 DOBRONRAVOW.]

Eczema.—*Continued.*

76.—Ichthyol	4 parts
Zinc Oxide.....	3 parts
Wheat Starch.....	3 parts
Lanolin.....	40 parts
Ointment !	[JANOVSKY.]

In chronic form of eczema :

77.—Ichthyol	8 to 5 parts
Hebra's Ointment.....	45 parts
	[JANOVSKY ; LANGE.]

Or :

78.—Soap Plaster	20 parts
-------------------------------	----------

Liquefy by gentle heat and add :

Ichthyol ..	1 part
Salicylic Acid	1 to 2 parts
Spread on lint ! Retaining bandage.	[JANOVSKY ; HEUSS.]

79.—Ichthyol	
Zinc Oxide	
Vaseline	Equal parts
Ointment ! (In chronic eczema.)	[E. CHATELAIN.]

Eczema Seborrhœica.

80.—Ichthyol ... 1 to 2 parts
Oil Sweet Almonds 10 parts
Embrocation, especially upon hairy parts ! Begin with the weak solution and gradually increase.
[MOREL-LAVALLÉE.]

81.—Ichthyol
Precipitated Sulphur
Carbolic Acid
Camphor... Of each 1 part
Benzoated Zinc
Ointment (or
Zinc Oleate)... 80 parts
Ointment !
[H. G. BROOKE.]

Eczema Vulvæ.

82.—Ichthyol	1 part
Distilled Water	9 parts
	[BAGOT ; DOBRONRAVOW.]

Endometritis.

83.—Ichthyol 2 parts
 Glycerin 55 parts
 (For tampons and swabbing
 out the uterine cavity.
 [WINCKEL ; PASQUALI.]

84.—Ichthyol q. s.
 For swabbi. g out the uterine
 cavity !
 [BLOOM ; KOETSCHAU ;
 TEMESVÁRY.]

84a.—Tampon the uterine cavity with strips of gauze
 saturated with pure Ichthyol. [E. KURZ.]

85.—Ichthyol 1 part
 Glycerin 9 parts
 For injections after curettement, or for the purpose of
 avoiding curettement !
 BAGOT ; MANGIAGALLI ; POLACCO.]

Or :

For tampons, and for swabbing the uterine cavity, or the
 cervix, by means of Playfair's sound. [TEMESVÁRY.]

86.—Ichthyol 3 to 5 parts
 Glycerin 10 parts
 For injections into the uterus immediately after curette-
 ment ; to be repeated during the succeeding days !
 [BERRUTI ; BERGESIO ; ALBERTOLETTI.]

In chronic endometritis :

87.—Ichthyol.... . q. s.
 For swabbing the uterine cavity, without curettement.

88.—Ichthyol
 Distilled Water..... Equal parts
 For swabbing the uterine cavity, after curettement.
 [HAULTAIN.]

89.—Endometritis following gonorrheal vaginal affec-
 tions, is rapidly improved upon introduction of cotton
 tampons impregnated with **Ichthyol**. The pain is
 diminished in a short time.
 [SCHWIMMER ; DOBRONRAVOW.]

Endometritis.—*Continued.***90.—Ichthyol**

Glycerin..... Equal parts
 For swabbing the uterine cavity, or as injection with
 Braun's syringe.
 [ENGSTROEM; DOBRONRAVOW.]

In endometritis with secondary salpingo-oöphoritis :

Curettement. Afterward use :

91.—Ichthyol..... 24 parts

Boric Acid..... 8 parts

Glycerin..... 200 parts

For tampons, to be introduced into the vagina every third
 day. [BELL.]

92.—Gonorrhœal endometritis is improved upon intro-
 duction of a Playfair's sound covered with cotton-
 wool dipped in Ichthyol. [PASQUALE.]

Enteritis Chronica.**93.—Capsules Ichthyol-Lith-**

ium, 4 min. (0.25 Gm.).....No. 40

1 or 2 capsules twice daily.

[DOBRONRAVOW; PETELLA.]

Epididymitis.**94.—Ichthyol... 1 to 5 parts**

Distilled Water.. 10 parts

Envelop with cotton con-
 stantly moistened with the
 solution. [GADDE.]

95.—Ichthyol 5 parts

Iodoform... .. 2 parts

Vaselin..... 80 parts

Apply evenings.

[EICHHOFF.]

96.—Ichthyol

Glycerin

Distilled Water Equal parts

Paint the parts; then apply a thin layer of cotton-wool
 saturated with the solution, and cover with gutta serena
 tissue. Wear suspensory

[V. SEHLEN.]

Epistaxis.

97.—**Ichthyol**..... 1 part

Distilled Water..... 4 parts

Soak a pledget of cotton with this solution, and, with thread attached, place in the nostrils.

Erosiones Portion. Vagin.

98.—**Ichthyol** 1 part

Glycerin..... 9 parts

Use upon cotton tampons.

[KOETSCHAU; CALDERINI;
TEME-VÁRY.]

99.—**Ichthyol** q. s.

Paint. or for tampons!

[KOETSCHAU; KURZ;
MANGIAGALLI; POLACCO;
HOFMOKL.]

99a.—**Ichthyol**..... 1 part

Glycerin..... 2 parts

Paint on every third day without subsequent irrigation of the vagina or introduction of tampons.

[KOETSCHAU; KURZ; MANGIAGOLLI;
POLACCO; HOFMOKL.]

In superficial erosions use:

100.—**Ichthyol-Zinc**..... 1 part

Distilled Water..... 5 parts

Paint! [DOBRONRAVOW.]

Erysipelas.

101.—**Ichthyol** 1 part

Spirit Ether..... 1 part

Collodion..... 2 parts

Paint!

(In traumatic erysipelas, applied under the dressings.)

After previous careful washing of the neighboring, and apparently still intact, locality, with soap, the latter is first to be energetically rubbed with the solution and then the inflammatory erysipelatous area.

[VON BRUNN; GADDE; UNNA; E. CHATELAIN; LANGE.]

102.—**Ichthyol**..... 2 parts

Prepared Chalk..... 4 parts

Lard..... 4 parts

Ointment! [JAMIESON.]

Erysipelas.—*Continued.***103.—Ichthyol**

Vaselin..... Equal parts
Ointment!

After the existing wounds have been thoroughly disinfected and covered with a small iodoform-gauze compress, rub in energetically (massage), beginning a hand's breadth beyond the inflamed cutaneous area; then rub into the part affected with erysipelas after it has been washed with soap-water; following this, sufficient of the save to cover all of the affected cutaneous area, and to give it a uniform dark brown color, is applied; cover with a thin layer of absorbent gauze which has been moistened with salicylic acid solution, and over this a much thicker layer of ordinary cotton-wool; a light dressing ends this procedure, which must be carried on 2 or 3 times a day, and continued until 3 or 4 days elapse without any elevation of temperature being noticed. For extremely hairy parts, a weaker salve, consisting of equal parts of Ichthyol, water and lanolin, suffices.

[V. NUSSBAUM; KLEIN; CALDERINI; PETELLA.]

103a.—Application, by means of a brush, of undiluted Ichthyol is also very effective.

[BIEDERT; E. KUEZ; HEUSS; PETELLA.]

104.—Ichthyol..... 2 parts

Ether..... 2 parts

Glycerin..... 1 part

Paint! Especially upon hairy parts.

[GADDE; RABOW.]

105.—Ichthyol..... 1 part

Zinc Ointment... 9 parts

Ointment!

In wandering erysipelas! Rub over the whole surface of the body once or twice daily; also indicated in erysipelas of infants.

[UNNA.]

106.—Ichthyol..... 4 parts

Iodoform..... 4 parts

Creolin..... 4 parts

Lanolin..... 15 parts

Zinc Ointment..... 15 parts

Ointment! Spread on linen (lint).

[BROOKE.]

107.—Ichthyol..... 1 part

Resorcin..... 1 part

Lanolin..... 4 parts

Ointment! Rub in every hour.

[EICHHOFF.]

108.—Ichthyol..... 1 part

Vaselin..... 5 parts

Lanolin..... 5 parts

Ointment! Rub in (massage), or apply on dressings.

[GLÜCK.]

Erysipelas.—*Continued.*

109.—Ichthyol 1 part
 Distilled Water.. 3 parts
 Apply to the affected parts
 twice daily, and leave un-
 covered. These inunctions
 are to be continued until
 subsidence of the inflamma-
 tion.
 [SCHWIMMER; LANGE.]

110.—Ichthyol 2 parts
 Vaseline 3 parts
 Lanolin..... 3 parts
 Ointment!
 After the affected skin has
 been washed with soap and
 water, rub this ointment
 into the affected parts, once
 daily. [HOFMOKL.]

111.—Ichthyol
 Linseed Oil..... Equal parts
 Paint on 3 or 4 times daily. [HEUSS.]

Erythema.

112.—Ichthyol 3 to 5 parts
 Glycerin. ... To make 50 parts

Salve!
 Rub in, after previous washing with 4% boric-acid solu-
 tion. Cover with absorbent cotton in a simple manner,
 or by compress.

(To be employed in red exudative erythema of the new-born,
 intertrigo, eczema, prurigo, and other affections accompanied by
 burning, itching, pain, where an astringent and anodyne action is
 desired.) [DI LORENZO; PETELLA.]

113.—Ichthyol 1 part
 Distilled Water..... 2 parts
 15 drops 3 times a day.

The internal use of Ichthyol is indicated in the following dis-
 turbances of the circulation: Hyperemia and chronic inflammation
 of the conjunctiva, congestions, habitual redness of the face, cold-
 ness of the hands and feet, chilblain, erythema of the extremities,
 etc. [JAMIESON; GADDE; V. NUSSBAUM.]

113a.—Capsules Ichthyol-Sodi-
um, 4 min. (0.25 Gm.).....No. 40
 1 or 2 capsules twice daily. [JAMIESON.]

114.—Ichthyol.....q. s.
 Paint!
 (In erythema multiforme, urticaria, lichen urticatus
 erythema following burns, frostbite and lupus.)
 [UNNA; LANGE.]

Erythema.—*Continued.*

114a.—**Carbolated Ichthyol**
Varnish q. s. [BROOKE.]
 Paint †

115.—**Ichthyol** 1 part
 Wheat Starch 2 parts
 Zinc Oxide 2 parts
 Vaselin (or lard) 4 parts
 Ointment †
 (In toxic erythema after influenza) [V. SEHLEN.]

Facial Neuralgia.—See Neuralgia.

Felon.—See Panaritium.

Fissura Ani.

116.—Once a day, a brush dipped in **Ichthyol** is to be introduced per anum and expressed. The application is not painful, and, even in those cases in which the most varied remedies have been tried in vain, healing takes place within 1 to 2 weeks.
 [VAN DER WILLEN; BAUM.]

116a. **Ichthyol-Zinc Salve-Mull and Paste.**
 [V. SEHLEN.]

Fistulæ and Suppurating Wound Cavities.

117.—Gauze Tampons saturated with **Ichthyol**.
 [VANZETTI; DORONRAVOW; LANGE.]

Fluor Albus.

118.—**Ichthyol** 1 to 2 parts
 Glycerin Enough to make 10 parts
 Use on cotton tampons.
 [ALBERTOLLETTI; MANGIAGALLI; POZZO;
 SCHWIMMER; BERRUTI; BERGESIO;
 TEMESVÁRY.]

In addition, the internal use of **Ichthyol** is indicated, as in the following:

119.—**Ichthyol Pills**, 1½ gr. (0.1 Gm.)
 s. c. No. 100
 1 to 3 pills 3 times a day, after meals.

[BERRUTI; BERGESIO; ALBERTOLLETTI.]

Fluor Albus.—*Continued.*

120.—**Ichthyol.**, 1 to 2 parts
 Petrolatum, 2 parts
 Salve! Apply to the vagina.

121.—Injections of 5 to 10 watery solutions of **Ichthyol.** [PETELLA.]

122.—**Ichthyol** 5 min. (0.3 Gm.)
 Cacao Butter, 20 to 30 gr. (1.3 to 2 Gm.)

Make 10 vaginal suppositories! 1 morning and evening, after previous irrigation. [V. SEHLEN.]

Frostbite.

Either as in *burns*: or, in great sensitiveness of the parts:

123.—**Ichthyol**, 3 parts
 Olive Oil, 20 parts
 Paint! [LANGE.]

124.—**Ichthyol**, 1 part
 Camphorated Oil 4 parts
 Rub in 1 or 2 times a day; cover with cotton-wool. [HEUSS.]

125.—**Ichthyol** 1 to 2 parts
 Lead Ointment, 2 parts
 Ointment! [NEISSER.]

126.—**Ichthyol**, 5 parts
 Petroleum Ether, 5 parts
 Oil Turpentine, 1 part
 Diachylon Ointment (Hebra), 30 parts
 Ointment! Apply once or twice daily; cover with cotton-wool.

Or:

Paint with pure Ichthyol.

[NEISSEL; LANGE.]

Furunculus.

127.—**Ichthyol**, 1 part
 Soap Ointment (Superfatted Potash Soap), 10 parts
 Ichthyol Soap Salve! Rub into a lather on the part 3 times daily. [UNNA; LANGE.]

128.—**Ichthyol** ... 30 parts
 Corrosive Sublimate, 1 part
 Vaseline, 300 parts
 Ointment! Apply twice daily. [UNNA.]

Furunculus.—*Continued.***129.—Ichthyol**

Vaselin

Lanolin Equal parts

Salve! Apply twice a day.

Use also daily alkaline full baths.

[BERTARELLI ; PETELLA.]

130.—Ichthyol

Glycerin

Distilled

Water... Equal parts

Paint! Cover with a thin layer of cotton and gutta-percha tissue, and secure by a mull binder.

[V. SEHLEN.]

Gargle.**131.—Ichthyol..** 1 to 3 parts.

Distilled Wa-

ter.. To make 100 parts

For inhalations or gargle

(lukewarm)! Inhale 3 or 4

minutes 3 times daily (in

laryngitis, angina catarrh-

alis, pharyngitis, or bron-

chial asthma).

[PETELLA.]

131a.—Ichthyol .. 2 parts

Sodium Chlo-

ride 1 part

Distilled Wa-

ter. To make 100 parts

Douche and gargle (in hyper-

emia and swelling of the

mucous membrane of the

nose and throat).

Gastrectasia.**132.—Ichthyol-Sodium.....** 1 part

Boiled Water..... 400 parts

For irrigation of the stomach! The stomach is to be previously cleansed of remnants of food by means of 3 quarts of lukewarm water.

[SCHUETZE.]

Glandular Intumescence.—See also Formula No. 6a.**133.—Ichthyol..** 2 parts

Soft-Soap..... 6 parts

Oil Turpentine..... 1 part

Ointment! Rub in once daily.

[UNTERBERGER.]

Gout.—See Arthritis and Podagra.

Gonorrhea.

134.—Ichthyol 1 to 5 parts
 Distilled Water.....To make 100 parts
 For injection into the male urethra!
 [JADASSOHN; NEISSER; HERZ; TOBOLD;
 PETELLA.]

Or :

134a.—Ichthyol..... 1 to 5 parts.
 Bismuth Subnitrate 8 parts
 Distilled Water.....To make 100 parts
 For injection into the male urethra !
 [JADASSOHN.] .

135.—Ichthyol.. 1 to 2 parts
 Glycerin..... 2 parts
 Distilled Water. .To make 20 parts
 For injection into the female
 urethra, and for swabbing
 the cervix.

[JADASSOHN; DOBRONRAYOW.]

136.—Ichthyol 1 to 5 parts
 Distilled Water..To make 100 parts
 For injection into the urethra
 3 to 5 times daily ! Toward
 the end of the treatment the
 number of injections is to
 be diminished.
 [MANGANOTTI.]

137.—Bougies, containing 5 to
 10% **Ichthyol**. For the
female urethra and cervical
 canal, in gonorrhea.
 [NEISSER; DOBRONRAYOW.]

138.—1 to 2% Ichthyol injections,
 as well as irrigation of
 the pars anterior in recent
 cases.
 [SCHWIMMER;
 SEGRÈ; DOBRONRAYOW;
 UNTERBERGER.]

139.—Ichthyol.....q. s.

Or :

140.—Ichthyol..... 1 part
 Glycerin 2 parts
 In vaginal blennorrhœa! Apply with a brush every third
 day without subsequent irrigation of the vagina or
 introduction of tampons. [HOFMÖKL.]

141.—Ichthyol 3 to 4 parts
 Vaseline 20 parts
 For tampons in vaginal blennorrhœgia. [R. SEGRÈ.]

Gonorrhea.—Continued.

In adenitis use the following :

142.—Ichthyol	1 part
Vaselin	4 parts
Ointment!	[R. SEGRÈ.]

143.—Gelatin, or cacao-butter,
urethral suppositories, of
appropriate size, containing
1 to 2 min. (0.06 to 0.12 Gm.
Ichthyol.

Externally, in gleet !

• [ZUELZER ; UNTERBERGER ;
FOURNIER.]

144.—Ichthyol . 2 to 5 parts
Distilled Wa-

ter. To make 100 parts
For injections by means of an
ordinary syringe 5 or 6 times
a day ! Begin with 2% solu-
tion, and gradually increase.
With decrease of discharge,
reduce the number of in-
jections to *one* every night
and morning. Continue
these for 8 days after cessa-
tion of all evidence of a dis-
charge.

[VILLETTL.]

144a.—The Station for Syphilitic Patients of the Garrison at
Munich reports, on p. 241 of the "Sanitary Report of the Imperial
Bavarian Army" for the period from April, 1884, to March 31, 1894 :

"Thorough trials have shown that Ichthyol is to be classed
with the few medicaments which certainly and rapidly kill the
gonococci without increasing the inflammatory catarrhal pro-
cess, or causing injury to the mucous membrane.

"The following was used twice daily :

Irrigations with **Ichthyol 3 : 100.**

"It never caused trouble. Its anti-gonorrhœal action is un-
questionable.

"In acute gonorrhœa, Ichthyol is a prompt remedy; and in
chronic forms it was of great service in numerous cases where
other remedies were of no avail."

[Sanitary Report prepared by the Mil-
itary-Medical Division of the Imperial
Bavarian War Ministerium, Munich, 1894.]

145.—Ichthyol	3 to 6 parts
Lanolin.....	20 parts
Vaselin.....	40 parts
Ointment ! For treatment by sound, salve syringe, or canellated sounds.	
(In chronic gonorrhœa, urethritis posterior, and pros- tatitis.)	[v. SEHLEN.]

Gonorrhea.—Continued.**146.—Ichthyol..... 1 part**

Glycerin 9 parts

Take up freely with a roughened copper rod of the thickness of a goose-quill and wrapped with a thin layer of cotton. Fasten this to a long wooden handle, and introduce into the female urethra once daily, and then immediately remove.

The same mixture also serves for tampons, which, placed in the vagina, act as a partition between the urethra and the uterus. [JULLIEN.]

147.—Ichthyol. 2 parts

Sydenham's Laudanum..... 1 part

Distilled Water.....To make 40 parts

For injections! Once daily, at night.

(In acute gonorrhea.)

[FOURNIER.]

148.—1% Ichthyol irrigations (1 quart per sitting), 45–50° C. (113–122° F.).

Apply by means of Zuelzer's irrigator, Lohstein's prostat-urethral irrigator, or Nélaton's catheter, one daily.

(Especially effective in the subacute stage of gonorrhea.—
See details, page 114.)

[LOHNSTEIN.]

Hemorrhoids, Itching Piles, and Pruritus Ani.**149.—Ichthyol..... 1 part**

Vaselin... 20 to 30 parts

Ointment! Rub in twice daily.

150.—Ichthyol..... 1 part

Lanolin..... 10 parts

After each stool wash the part and anoint herewith.

[LANGE.]

151.—Ichthyol

Distilled Water..... Equal parts

Teaspoonful in a starch-paste enema with Oidtman's syringe.

(In hemorrhoids.)

Or :

152.—Ichthyol..... 8 min. (0.5 Gm.)

Cacao Butter..... 20 to 40 min. (1.3 to 2.5 Gm.)

Make 10 suppositories! 1 at night.

[v. SEHLEN.]

Headache, Nervous.

153.—Ichthyol..... 1 part
 Absolute Alcohol 4 parts
 Ether 4 parts
 Externally, as a spray !

154.—Ichthyol..... 2 parts
 Chloroform 8 parts
 Spirit Camphor. 12 parts
 Rub in 2 or 3 times daily (in
 rheumatic and neuralgic
 pains).

Herpes Zoster.

155.—In the initial stage, apply **Ichthyol** varnish locally
 with brush ; in addition, give, internally, 10 drops of
 Ichthyol 3 times daily.

[GADDE ; LANGE ; PETELLA.]

Hypersecretio Ventriculi.—See Gastrectasia.**Ichthyol Varnish.**

156.—Ichthyol..... 80 parts
 Wheat Starch 80 parts
 Conc. Solut. Albumen 2 to 3 parts
 Water.....To make 200 parts
 Embrocation ! [BROOKE.]

Ichthyol Varnish, Carbolyzed.

157.—Ichthyol..... 50 parts
 Carbolic Acid..... 8 parts
 Wheat Starch..... 100 parts
 Water..... 45 parts
 [UNNA ; BROOKE.]

Ichthyol Plaster and Ichthyol Cotton.

The former is especially serviceable for the coaptation of incised wounds after previous careful cleansing, or for covering small ulcers ; also for covering itching areas of skin, especially in small children. The plaster possesses the advantage of being easily moistened, adhering well, not being readily displaced, and can be left in position until the wound heals, unless suppuration, swelling, and the like do not contra-indicate.

Ichthyol cotton (20% and 50% possesses all the qualities of a purified, non-irritating cotton, and, when moistened, is very valuable in the early stages of injuries (bruises), in small wounds and

ulcers when secretion from the latter is absent or but very slight. The cotton may also be employed with good results in rheumatic affections. [BROOKE; DOBRONRAVOW; PETELLA.]

Ichthyol-Salve and Plaster-Mulls (of P. Beiersdorf & Co., Hamburg).

Ichthyol-Zinc Salve-Mull. single-faced and double, formula of Dr. Unna, is extremely valuable in many irritative conditions and in various forms of eczema; also as excluding plaster (without bandage) for the face and other portions of the body.

Ichthyol-Zinc Plaster-Mull manifests more intense action because of its air-excluding qualities. [V. SEHLEN.]

Ichthyol Soap.

Superfatted **Ichthyol Soap** (formula of Dr. Unna, prepared by Dr. W. H. Mielek and Thomas Douglas, Hamburg) serves excellently as a prophylactic to decubitus (bed-sores), irritation from contact of opposed cutaneous surfaces (chafing), disposition to furuncles (boils) and redness of the face, redness of the hands, and chilblains; as adjuvant in the treatment of the same diseases, especially rosacea, acne, intertrigo, and cutaneous pruritus.

Ichthyol-Salicylic-Acid Soap and **Ichthyol-Tar Soap** are prepared in superfatted, neutral, and alkaline forms, by Ferd. Muelhens, Cologne-on-Rhine, after the formulas of Dr. Eichhoff. The former is very serviceable in acne rosacea, acne, chilblains, intertrigo, furuncles (boils), and the like; the latter, in eczema, psoriasis, herpes tonsurans, favus, and the like.

Ichthyosis.

158.—**Ichthyol**..... 1 part
Glycerin Ointment (Vaselin or
Lanolin)..... To make 100 parts
Ointment! [CHATELAIN.]

Impetigo.

159.—**Ichthyol**..... 1 part
Vaselin 10 parts
Essence Mirbane..... To flavor
Ointment! [CHATELAIN.]

Inflammation of Douglas' Pouch and of Douglas' Folds.—See Para- and Perimetritis Chronica.

Influenza.

160.—Inhalations of 2% **Ichthyol** solution for 10 to 15 minutes, twice daily; and vaporization of the same solution over a spirit flame, for inspiration.

In addition, the following internally:

160a.—**Pills Ichthyol**, 1½ gr.
(0.1 Gm.), s. c. No. 100

1 to 5 twice daily.

[LORENZ; PETELLA.]

Intercostal Neuralgia.

161.—**Ichthyol** 8 parts

Distilled Water.... To make 100 parts

Externally! One syringeful subcutaneously; repeat until pain subsides.

[DEJARDIN BEAUMETZ.]

Intertrigo.

162.—Superfatted **Ichthyol Soap**, . . . q. s.

Rub into a lather on the part; wipe off dry, and powder the parts with Formula No.

163.

[UNNA; LANGE; PETELLA.]

163.—Conc. Aq. Sol.

Ichthyol . . . 1 part

Magnesium Carbonate 5 parts

Zinc Oxide 5 parts

Ichthyol Powder!

[UNNA.]

164.—**Ichthyol-Zinc Salve** Mull., . . . q. s.

Apply with cotton wool, and bandage.

[UNNA.]

165.—**Ichthyol**

Absolute Alcohol

Ether Equal parts

Externally! Apply upon cotton-wool, and bandage.

[CHATELAIN.]

166.—Ablutions with Superfatted **Ichthyol-Salicylic Soap**.

[EICHHOFF; PETELLA.]

Ischias.**167.—Alcoh.-ethersol.**

Ichthyol, 10 to
30%..... q. s.

Or :

10% salve, vaselin or lanolin.
[EULENBURG.]

168.—Ichthyol..... 5 parts

Salicylic Acid.. 1 part

Collodion..... 50 parts

Castor Oil..... 5 parts

Paint upon the painful parts
and joints night and morn-
ing.

[TOBOLD ; UNNA ; LANGE.]

169.—Ichthyol..... 3 parts

Distilled Water..... 100 parts

Externally: 1 syringe-ful subcutaneously. Repeat a num-
ber of times, until pain is relieved.

(Serviceable also in intercostal neuralgia, subacute and
chronic articular rheumatism, myeletis chronica, etc.)

[DUJARDIN-BEAUMETZ.]

Laryngitis, Laryngeal Catarrh.—Compare Gargles.**170.—Ichthyol..... 1 part**

Distilled Water..... 9 parts

Spray with an atomizer, and inhale.

[LANGE.]

Leprosy.**171.—Ichthyol**

Distilled Water. Equal parts

30 to 50 drops 3 times daily.

Or :

171a.—Capsules Ichthyol-So-

dium, 4 min. (0.25 Gm.).. No. 100

4 to 6 daily.

Persistent internal administration is followed by improvement
in the general condition. In the intervals between the external
treatment with stronger remedies (especially chrysarobin and
pyro-gallob), apply inunction with the following :

172.—Ichthyol..... 1 part

Simple Ointment..... 19 parts.

Ointment !

[UNNA.]

Leucorrhœa.—See Fluor Albus.

Lichen Urticatus.

173.—Here, in addition to the external application, the internal administration of either 5 to 10 drops of **Ichthyol** in half a wine-glass of water twice daily, or 2 to 5 pills twice daily, after meals, is indicated.

174.—**Ichthyol**, 5 to 10 parts
 Oil Cade ... 10 parts
 Salicylic
 Acid..... 2 parts
 Spirit Ether 100 parts
 Paint! Apply 2 to 3 times
 daily. [GADDE.]

174a.—**Ichthyol**... 4 parts
 Salicylic Acid 1 part
 Collodion 40 parts
 Spirit Ether.. 5 parts
 Paint! Apply 2 or 3 times
 daily. [UNNA.]

176. **Ichthyol Varnish**..... q. s.
 Apply 2 to 3 times daily.

Lipoma.

176.—**Ichthyol** 1 part
 Lanolin..... 3 parts
 Ointment!

Lip Eczema.

177.—Cover the parts at night with **Ichthyol-Zinc**
 Salve-mull. During the day, apply the same to the
 nps. [V. SERLEN.]

Lumbago.—See, also, Ischias and Arthritis.

178.—**Ichthyol** 2 parts
 Vaseline..... 6 parts
 Oil Turpentine..... 1 part
 Ointment! [UNTERBERGER.]

Lupus.

- 179.—Ichthyol-Sodium** 1 part
 Lanolin..... 1 part
 Vaselin 8 parts
 (In after-treatment of lupus.) [UNNA.]

- 180.—Ichthyol**
 Liq. Carbolic Acid..... Equal parts
 Externally!
 (For cauterizing in lupus exulcerans, or for after-curettement.) [HEUSS.]

- | | |
|--|--|
| <p>181.—Ichthyol..... 6 parts
 Zinc Oxide 15 parts
 Starch..... 15 parts
 White Vaselin.. 15 parts
 Mercury Oleate,
 5% 15 parts
 Salicylic Acid .. 4 parts
 Red-bole to color; anoint
 twice daily.
 (Preparatory treatment of lupus vulgaris.)
 [BROOKE.]</p> | <p>182.—Ichthyol..... 1 part
 Benzoated Zinc
 Ointment..... 80 parts
 Precipitated Sulphur..... 1 part
 Ointment! Apply twice daily
 (in lupus erythematosus.)
 [BROOKE.]</p> |
|--|--|

Lymph-Gland Intumescence (in erysipelas, phlegmons, infection, and the like).

- 183.—Ichthyol** 1 to 2 parts
 Vaselin..... 5 parts
 Lanolin 5 parts
 Ointment!
 [GLÜCK.]

Mastitis.

- 184.—Ichthyol** 4 parts
 Lanolin 5 parts
 Glycerin 5 parts
 Olive Oil 1 part
 Ointment!
 [OEHREN.]

Mastitis.—Continued.

185.—Ichthyol q. s.
Externally!

186.—Ichthyol 1 part
Glycerin 9 parts
Externally!
[CALDERINI; DI LORENZO;
DOBRONRAVOW.]

In Fissured Nipples use :

187.—Ablutions with Superfatted **Ichthyol-Salicyl.-**
Acid Soap. [EICHHOFF; DOBRONRAVOW.]

188.—Ichthyol-Zinc Paste q. s.
(Cover with borated lint or Ichthyol-Zinc Salve-Mull.)
[V. SEHLEN.]

Metritis Corporis et Cervicis Uteri.

189.—Ichthyol 1 part
Glycerin 9 parts
For tampons!

(See, also, Erosiones and Endometritis.)

[EHRENDORFER; ENGSTROEM; KOETSCHAU; MONOD;
POLACCO; CALDERINI; MANGIAGALLI;
PETELLA; TEMESVÁRY.]

190.—Ichthyol q. s.
Or:

191.—Ichthyol 1 part
Glycerin 2 parts
Paint on every third day
without subsequent irriga-
tion of the vagina or intro-
duction of tampons.
(In metritis cervicalis.)
[HOFMOKL.]

192.—Ichthyol 1 part
Glycerin 4 parts
Apply on tampons, to be intro-
duced every second day into
the vaginal cul-de-sac.
(In chronic metritis and sub-
acute perimetritis.)
In addition, the following
internally:

193.—Pills Ichthyol,
1½ gr. (0.1 Gm.),
s. c No. 100
2 or 3 pills with milk, 3 times
daily, after meals.
[DOBRONRAVOW.]

Migraine.—See Recipe No. 154.

Morbus Brightii.**194.—Capsules Ichthyol-Lith-****ium, 4 min. (0.25 Gm.)No. 40**

2, 3, or 4, four times daily ; gradually increase the number.

(See, also, Nephritis Chronica.)

Mumps.—See Parotitis.**Nasal Polypus.**—See Coryza, but increase the percentage of Ichthyol.**Neuralgia.****195.—Ichthyol..... 1 part**

Absolute Alcohol 4 parts

Ether 4 parts

Externally !

[EULENBURG ; PETELLA.]

196.—Ichthyol 8 parts

Chloroform 4 parts

Spirit Camphor. 16 parts

Embrocation ! Apply 2 or 3
times daily. [RABOW.]**197.—Ichthyol..... 4 parts**

Mercurial Ointment 1 part

Chloroform 6 parts

Spirit Camphor 6 parts

Embrocation ! Shake before using.

[ERLENMEYER ; TOBOLD.]

Nephritis Chronica.**198.—Ichthyol..... q. s.**

20 to 30 drops 3 times daily.

Or :

198a.—Pills Ichthyol, 1½ gr.

(0.1 Gm.), s. cNo. 100

2 to 5 pills 3 times a day.

Recommended because, in several instances, the amount of albumin is said to have been reduced, and the general condition always greatly improved.

Nephritis Chronica.—Continued.

199.—Ichthyol q. s.

Apply upon moist, circularly applied dressings.

(Prophylactic to nephritic oedema of the extremities.)

(See, also, Formula No. 194.)

[UNNA.]

Nettle-rash.—See Urticaria.

Odontalgia.

200.—Ichthyol

Chloroform Equal parts

Shake before using! Place 1 drop in the cavity of the tooth. The tooth must be previously cleansed of remnants of food.

Oöphoritis.

201.—Ichthyol 1 to 2 parts

Glycerin To make 10 parts

For tampons!

[EHRENDORFER; ENGSTROEM; KOETSCHAU; BELL;
MANGIAGALLI; POLACCO; CALDERINI;
DOBRONRAVOW; TEMESVÁRY.]

(See also Para- and Perimetritis.)

201a.—The same mixture serves for tamponing, as well as for introduction into the vagina after filling into closed gelatin capsules; also in Salpingitis.

[KURZ; DOBRONRAVOW.]

202.—Ichthyol ... 8 parts

Boric Acid.... 1 part

Glycerin..... 100 parts

For tampons! Introduce into the vagina every third day.

[BELL.]

203.—Ichthyol q. s.

Paint the whole vagina twice a week. Afterward introduce 10 to 20 \times Ichthyol-glycerin tampons of wood-fiber wool. Allow to remain 24 hours.

[WINTERNITZ.]

204.—Ichthyol 1 part

Soft-Soap..... 10 parts

For inunction of the abdominal wall!

[WINTERNITZ.]

Oöphoritis.—Continued.

In addition, use the following, internally :

- 205.—**Pills Ichthyol**, $1\frac{1}{2}$ gr. (0.1 Gm.), **S. c.**..... No. 100
1, three times a day. [WINTERNITZ.]

Operations.

- 206.—In plastic and other operations, where an anti-septic protective dressing is not possible, paint the parts with undiluted **Ichthyol**, using alternate layers of the finest flakes of sterilized cotton. Externally, upon the sutures in cancer of the lip iodoform within the mouth, in phimosis operations, and the like.
[BIEDERT.]

- 206a.—In sutured wounds also after operations, viz. : plastic, paint freely with **Ichthyol**, cover with gauze saturated with liquid paraffin, and afterward with dry absorbent cotton. Repeat same dressing after removal of sutures. Tumors, red or painful scars : Paint at night with **Ichthyol**, and wash off in the morning.
[V. HOFFMANN ; LANGE.]

Orchitis Gonorrhoeica.

- 207.—**Ichthyol**..... 2 to 3 parts
Vaselin To make 6 parts
Ointment ! Bind with cotton-wool and gutta-percha tissue.
[FOURNIER.]

Otitis Media, Acuta et Chronica.

- 208.—**Ichthyol**..... 2 parts
Distilled Water. 15 parts
Glycerin..... 15 parts
Drop into the ear 3 times a day. [SOLT.]
- 209.—**Ichthyol-Sodium**
Distilled Water
Glycerin ... Equal parts
After thorough daily syringing with warm e-nomide tea, allow 4 to 8 drops to run into the ear.
(In purulent inflammation of the middle ear.)
[SCHUETZE.]

Parametritis and Perimetritis.—Continued.

217.—Ichthyol 1; min. (0.1 Gm.)
Cacao Butter..... 45 gr. (3 Gm.)
 For 1 suppository ! [WINCKEL.]

218.—Ichthyol..... 4 parts
Lanolin..... 5 parts
Vaselin..... 5 parts
 Externally ! Rub in lightly at that point upon the abdomen where pain is elicited on pressure.
 As anodyne remedy in peritonitic irritations after perimetritis. [HOFMOKL.]

219.—Ichthyol 1 to 2 parts
Vaselin..... To make 10 parts
 Ointment ! Rub into the abdominal parietics.
 (Also for massage in chronic perimetritis. [DOBRONRAVOW.]

In addition employ :

220.—Tampons saturated with 10 to 15% Ichthyol-Glycerin every other day.
 [BERRUTI ; BERGESIO ; ALBERTOLETTI ; BARDENHEUER ;
 BAGOT ; BELL ; HAULTAIN ; FREUND ;
 KOETSCHAU ; V. SLAWIANSKY ; MANGIAGALLI ;
 POLACCO ; TEMESVÁRY.]

In addition, internally :

221.—Pills Ichthyol, s. c......No. 100
 2 or 3, two to four times daily.
 [HAULTAIN ; MANGIAGALLI ; POLACCO.]

222.—Ichthyol is indicated in all possible forms of inflammatory residua in the female genital organs (exudative indurations, chronic exudates), applied from the vagina (tamponing with Ichthyol-Glycerin) as well as from the abdominal parietics (unctions of pure Ichthyol or Ichthyol-Lanolin in large amounts).
 The anodyne, as well as the absorptive action, even in quite chronic indurations, is unmistakable, and, according to thorough trials, positive.
 [SAENGER ; BIEDERT ; KOETSCHAU ; EHRENDORFER ;
 ENGSTROEM ; PASQUALI ; DOBRONRAVOW ;
 POLACCO ; TEMESVÁRY.]

Parametritis and Perimetritis.—*Continued.*

223.—Ichthyol..... 1 part
 Glycerin 19 parts
 Introduce thoroughly-saturated cotton tampons into the vaginal cul-de-sac.

224.—Ichthyol 1 part
 Lanolin..... 9 parts
 Vaselin 9 parts
 Rub into the abdominal walls.

225.—Ichthyol 300 min. (20 Gm.)
 Cacao Butter. To make 10 vaginal suppositories
 1 at night. Entrance to vagina to be tamponed with a small piece of cotton-wool. In the morning, vaginal irrigation with boiled water.

226. Pills Ichthyol, s. c. No. 100
 2, three times daily. [PAWLK.]

227.—Ichthyol 1 part
 Glycerin..... 2 parts
 Externally! After the vagina has been thoroughly cleansed of all mucus by means of hydrogen peroxide, introduce upon long, twisted woolen tampons; allow tampons to remain for 24 hours, then follow with a warm alkaline irrigation.

In addition, employ the following as adjuvant :

227a.—Ichthyol..... 1 dr. (1 Gm.)
 Mercuric Chloride..... 1 gr. (0.06 Gm.)
 Extract Senna..... 1½ dr. (8 Gm.)
 Make into 30 capsules!
 1 three times a day, after meals. [BLOOM.]

228.—Ichthyol..... 10 parts
 Glycerin..... 3 parts
 Paint the vagina!

229.—Ichthyol..... 1 to 2 parts
 Glycerin..... To make 10 parts
 Use on tampons!

Parametritis and Perimetritis.—*Continued.***230.—Ichthyol**..... 1 part

Lanolin 10 parts

Use as an inunction for the abdominal walls in exudations!

The action is especially favorable in painful inflammatory processes of Douglas's cul-de-sac and of Douglas's folds.

[V. SÆXINGER ; WINTERNITZ.]

Parametritis Acuta et Chronica.

In chronic para- and perimetritic affections, also in such of a gonorrheal nature, cotton tampons soaked in Ichthyol-Glycerin may be employed with good results :

231.—Ichthyol..... 3 parts

Glycerin..... 17 parts

A quite loose tampon is to be thoroughly saturated with the solution, and then pressed with moderate firmness against the vaginal cul-de-sac and cervix, which are exposed by means of a spoon-shaped speculum, the patient being in the elbow-knee position. Upon this is laid a piece of absorbent cotton, either dry or saturated with glycerin.

Such a tampon also serves as a "test" or "sample" tampon for detecting the amount and character of the secretion flowing from the os uteri during the period of 48 hours.

Glycerin tampons may be used as alternate treatment, according to the reaction of the vaginal mucous membrane.

[SCHULTZE.]

232.—Ichthyol

Distilled Water..... Equal parts

For hypodermatic injection! Inject twice weekly into the exudate by means of Thiersch's hypodermic syringe. Afterward, rest in bed: Priessnitz's fomentations.

[BARDENHEUER ; KOETSCHAU.]

Parotitis.

233.—The painfulness subsides rapidly when the parts are anointed with **Ichthyol-Lanolin** (1 to 2%), and covered with cotton-wool.

233a.—In many cases undiluted **Ichthyol** is indicated.

[LANGE.]

Pelveo-peritonitis.—Compare with Para- and Perimetritis.

234.—**Ichthyol** 1 part
 Lanolin..... 2 parts
 Lard 1 part

Ointment!

Employ in those cases where painfulness and swelling persist after cessation of the acute symptoms. Gentle inunction of the pelvic region of the abdomen every 2 or 4 hours for 10 to 20 minutes at a time.

[BLOOM.]

Peripleuritis.—See Pleuritis.

Perioöphoritis.—See Oöphoritis.

Peripneumonia.—See Pleuritis.

Peritonitis and Perityphlitis.

235.—Paint the whole abdomen with **Ichthyol**, and cover with cotton (Ichthyol-cotton) and gutta-percha tissue.

[GUENTHER.]

236.—**Capsules Ichthyol**, 4 min.

(0.25 Gm.)..... No. 40

2 to 4 four times a day, in conjunction with the external application to the abdomen of compresses saturated with 10% Ichthyol solution.

[PETELLA.]

Periurethral Abscess.

237.—**Ichthyol**..... 1 part
 Lanolin..... 5 parts

Inunction!

[EHRMANN.]

238.—**Ichthyol**.... 2 parts
 Distilled Water 100 parts

Cocaine Hydrochlorate 5 parts

Inject a few drops into the abscess.

[EHRMANN.]

Perniones (Chilblains).

239.—Ichthyol . . 5 to 8 parts
Vaselin (or
Lanolin)

To make 50 parts
Ointment! Use daily. Before
applying, wash the parts
with lukewarm water.

[DUJARDIN-BEAUMETZ;
FOURNIER.]

240.—Ichthyol..... 5 parts
Chloroform..... 2 parts
Petrolatum..... 3 parts

Ointment! If the skin is
broken, omit the chloro-
form and use zinc ointment
instead of petrolatum.

[UNNA; LANGE.]

241.—Ichthyol 1 to 2 parts
Vaselin..... 10 parts

Rub in well at night, and allow the salve to act through
the night.

[BERTARELLI; PETELLA.]

242.—Ichthyol
Oil Turpentine

Equal parts
Liniment! Wash the affected
part with warm water and
soap, rub with the liniment,
and wrap in cotton-wool.

[GADDE; PETELLA.]

Wash the parts with super-
fatted Ichthyol - Salicylic
Soap (Eichhoff), and apply:

243.—Ichthyol 1 part
Balsam Peru.... 1 part
Lanolin..... 2 parts

Ointment! Apply repeatedly.

[EICHHOFF.]

244.—Ichthyol 1 part
Flexible Collo-

dion..... 10 parts
Externally! First rub off
with spirits of camphor and
then paint.

244a.—Ichthyol.... 1 part
Camphorated

Oil..... 1 part
Lanolin..... 4 parts

In chafed or irritated skin!
Anoint night and morning,
and wrap in cotton-wool.

[HEUSS.]

Phlegmon.

Especially at the outset:

245.—Paint freely with pure **Ichthyol**, and cover with
cotton-wool.

[KURZ; VANZETTI.]

246.—Ichthyol

Distilled Water Equal parts
Paint the parts, and cover with a thin layer of cotton-
wool. If indicated, powder with flour.

(Also indicated in erysipelas, furuncle, and contusions.)

[V. SEHLEN.]

Phlegmone.—*Continued.***247.—Ichthyol**

Glycerin

Distilled Water..... Equal parts

Paint! Apply and cover with gutta-percha tissue. Mull binder.

[V. SEHLEN.]

In Idiopathic and Scarlatinal Phlegmone, use:

248.—Ichthyol..... 1 to 2 parts

Vaselin..... 4 parts

Lanolin..... 4 parts

For inunction!

[GLÜCK.]

Pityriasis Capitis.**249.—Ichthyol..... 1 part**

Vaselin..... 6 parts

Lanolin..... 2 parts

For inunction!

[FOURNIER.]

Pleuritis.**250.—Ichthyol..... 1 part**

Oint. Pot. Iodide 4 parts

Lanolin..... 8 parts

Externally! Anoint 3 or 4 times daily.

250a.—Ichthyol-So-

dium..... 1 part

Spirit Ether... 2 parts

Externally!

In acute cases, a 25 to 50% Ichthyol-Vaselin (lanolin) ointment, or pure Ichthyol applied freely, is indicated.

Podagra, Acuta et Chronica.—See also Arthritis**251.—Pills Ichthyol, 1½ gr. (0.1**

Gm.), s. c.....No. 100.

3, thrice daily.

In chronic gouty arthritis, the internal use in the above doses, for months, or even a year, is emphatically recommended. In all the cases observed, this method of treatment (in addition to diet and physical therapy) has been followed by a remarkable diminution of the affection.

[FLIESS.]

Proctitis.

- 252.—**Ichthyol**..... 1 part
 Olive Oil .. 9 parts
 Tablespoonful as clyster, 3 times a day. [SCHUETZE.]

Prostatitis.

- 253.—**Ichthyol**,
 20 min. (1.3 Gm.)
 Ext. Belladonna,
 2½ gr. (0.15 Gm.)
 Cacao Butter,
 4 dr. (15 Gm.)
 Make into 10 suppositories!
 Introduce 1 after stool.
 [ULLMANN.]
- 254.—**Ichthyol**..... 1 part
 Distilled Water.. 9 parts
 An Oidtman's syringe-ful per
 anum, 3 to 4 times a day.
 [SCHARFF.]

- 255.—**Supposit. Ich-**
thyol, 5 to 10
 min. (0.3 to 0.6
 Gm.)..... No. 10
 1 suppository night and morn-
 ing, after stool.—(See *de-*
tails, page 116.)
 [FREUDENBERG; LANGE.]
- 256.—**Ichthyol**, 3 to 5 min.
 (0.2 to 0.3 Gm.)
 Cacao Butter,
 30 gr. (2 Gm.)
 Opium.. 1 gr. (0.06 Gm.)
 Make 10 such suppositories!
 After irrigation of the rec-
 tum, introduce 1 supposi-
 tory twice daily (especially
 at night).
 [ERLENMEYER; PETELLA.]

- 257.—**Ichthyol** 3 parts
 Lanolin 10 parts
 Cold Cream..... 20 parts
 Ointment! Inject into the rectum by means of a syringe.
 [NEISSER.]

- 258.—**Ichthyol**,
 75 min. (5 Gm.)
 White Wax, 30 gr. (2 Gm.)
 Cacao Butter, to make 10
 suppositories.
 Introduce 2 once daily.
 [EHRMANN.]
- 258a.—**Ichthyol**,
 75 min. (5 Gm.)
 Gelatin. Mass, to make
 10 suppositories.
 Introduce 2 once daily.
 [EHRMANN.]

- 259.—**Ichthyol**
 Distilled Water,
 Equal parts
 Add a teaspoonful to starch-
 paste clyster, to be given
 with Oidtman's syringe.
 [V. SEHLEN.]
- 259a.—**Supposit. Ich-**
thyol, 7 min.
 (0.5 Gm.) No. 10
 Ichthyol,
 0.5 Gm. (8 min.)
 1 twice daily.
 [V. SEHLEN.]

Prurigo.

260.—**Ichthyol.**, internally, in increasing doses, in conjunction with external treatment with tar.

Ablutions with superfatted Ichthyol-Tar soap.

[EICHHOFF.]

Pruritus.

261.—**Ichthyol.**..... 2 parts

Absolute Alcohol..... 2 parts

Ether 9 parts

Externally (as paint or inunction) !

[EULENBURG; LANGE.]

262.—**Ichthyol.** 1 part

Distilled Water. 9 parts

Paint (in Senile Pruritus, Pruritus Hiemalis, Pruritus of Diabetics, of Neuroasthenics and of patients suffering from Spinal Disease) !

[RABOW; UNNA; TOBOLD.]

262a.—**Ichthyol.**.... 2 parts

Salicylic Acid. 1 part

Distilled Water 7 parts

Paint ! [ERLENMEYER.]

Ablutions with superfatted

Ichthyol-Salicylic Acid Soap

[EICHHOFF.]

Pruritus Vulvæ.

263.— **Ichthyol** 1 to 2 parts

Distilled Water!.....To make 20 parts

Lotion !

(Also useful in Pruritus induced by Oxyuria.)

[V. SAXINGER; WINTERNITZ.]

264.—**Ichthyol**..... q. s.

Embrocation ! Apply after previous washing.

[BAUMM; DOBRONRAVOW; PAWLAK.]

Psoriasis.

265.—**Ichthyol**..... 1 part

Gutta-percha 1 part

Chloroform 10 parts

Externally !

[CHATELAIN.]

Psoriasis.—*Continued.*

266.—Ichthyol. . . . 1 part
 Collodion..... 5 parts
 Ether,
 Sufficient to dissolve
 Rub in every fourth day after
 a bath of long duration.
 [FOURNIER.]

266a.—Ichthyol.... 5 parts
 Vaseline..... 6 parts
 Lanolin 6 parts
 Soft-Soap 6 parts
 Inunction! Once daily (upon
 hairy parts).
 [FOURNIER.]

Psorospermiosis Ulcerosa et Follicularis.

267.—Ichthyol q. s.
 Paint the ulcers and affected parts; allow to remain for a
 few hours, and then wash off with warm water.

Or:

267a.—Ichthyol 3 parts
 Spirit Ether..... 11 parts
 Collodion 11 parts
 Paint! Apply once or twice daily (in ulcerative psoro-
 spermiosis).
 [RAVOGLI.]

268.—Ichthyol. ... 2 parts
 Diachylon Oint-
 ment (Hebra) 13 parts
 Spread upon linen! Use upon
 ulcerated surfaces.
 In those cases where the para-
 sites lie in the depth of the
 tissues, previous touching
 for a number of times with
 a saturated solution of
 potassa upon a cotton swab,
 is indicated. The surfaces
 thus treated are to be washed
 off, and then covered with
 Ichthyol-Diachylon plaster.
 [RAVOGLI.]

268a.—Ichthyol. ... 2 parts
 Oil Almonds... 1 part
 Lime Water ... 1 part
 Rose Water... 8 parts
 Glycerin..... 8 parts
 Liniment! Wash or paint
 the affected parts.
 (In follicular psorospermiosis,
 especially where the process
 is extensive or hairy sur-
 faces are to be treated.)
 [RAVOGLI.]

Rhagadena of the Nipples, Lips, etc.—See Lip
 Eczema and Mastitis.

Rheumatism Articularis.—See Arthritis.

Rheumatism Muscularis.—See also Arthritis.**269.—Ichthyol - So-**

dium..... 1 part
Glycerin..... 2 parts
Lard..... 7 parts

Externally !

[RABOW.]

270.—Ichthyol-

Sodium 2 to 10 parts

Olive Oil.... 1 to 2 parts

Lanolin..... 20 parts

Externally !

[PETELLA ; TOBOLD.]

271.—Ichthyol..... 2 parts

Distilled Water.. 3 parts

Externally ! Previous to the
embrocation, the affected
parts must be washed with
warm soap-water, and, after
the embrocation, enveloped
in cotton-wool.

[GADLER ; RABOW ;

TOBOLD ; LANGE.]

272.—Ichthyol-

Sodium . . . 1 part

Chloroform 2 parts

Oil Hyoscyamus. 2 parts

Embrocation ! Shake before
using ! Apply a number of
times daily, and cover the
parts with salicylic-jute or
Brun's cotton.

[SCHWIMMER.]

273.—Ichthyol 8 parts

Chloroform 1 part

Olive Oil..... 6 parts

Inunction ! Cover the parts with 2½ Ichthyol cotton.

(Also useful in anubago and neuralgia.)

In addition, use, in chronic cases, 2 to 4 Ichthyol Pills.

[DOBRONRAVOW.]

274.—Ichthyol..... 6 parts

Absolute Alcohol 7 parts

Ether..... 7 parts

Embrocation !

[EULENBURG ; KOETSCHAU.]

275.—Ichthyol 3 parts

Chloroform..... 1 part

Alcohol..... 4 parts

Rub in, and envelop the part
in cotton-wool.

[GUALDI.]

Rosacea.

Internally :

276.—Capsules Ichthyol, 4 min.

(0.25 Gm.).....No. 40

1, two to three times daily.

Externally :

277.—Ichthyol 1 part

Benzoated Zinc Ointment 30 parts

Precipitated Sulphur..... 1 part

Armenian Bole.... Sufficient to color

Also, 10% Ichthyol Soap for long continued use.

[BROOKE.]

Salpingitis.—See, also, Para- and Perimetritis, and Oöphoritis.

278.—10% **Ichthyol-Glycerin** tampons introduced* into the vagina 2 or 3 times a week. [BELL.]

Also good in Catarrhal and Chronic Salpingitis.
[DOBRONRAVOW ; TEMESVÁRY.]

278a.—Paint the vagina with pure **Ichthyol** 3 times a week. [KÖTSCHAU.]

Salpingoöphoritis.—Compare with Salpingitis and Oöphoritis.

279.—**Ichthyol**..... 90 min. (6 Gm.)
Oil Eucalyptus..... 20 drops
Cacao Butter To make 10 suppositories
Place 1 in the vagina every evening.

In addition, internally :

Capsules Ichthyol, 4 min. 0.25
Gm.)..... No. 40
1 capsule 3 times a day. [BELL.]

Scabies.

280.—**Ichthyol**
Distilled Water
Glycerin Equal parts
Externally : After 15 minutes inunction of the affected parts with green soap, give a warm bath of half-an-hour duration ; then rub the salve in thoroughly.
[UNTERBERGER.]

Scrophulosis.

281.—**Ichthyol**
Distilled Water..... Equal parts.
3 to 10 drops in water 2 or 3 times a day. For children, 1 drop more than they are years old.
(Especially effective in preventing abnormal decomposition in the intestine. The feces lose the pungent odor. Good prophylactic in flatulence and heart-burn.)
[V. HOFFMANN ; LANGE.]

Scrofulous Swelling of the Nose and Lips.

282.—Ichthyol

Vaselin
Lanolin Equal parts
Ointment! Rub in evenings, and allow to act through
the night. [BERTARELLI.]

Sycosis.

283.—Ichthyol 5 parts

Chrysarobin... 5 parts

Salicylic Acid . 2 parts

Vaselin (or Lan-

olin) 100 parts

Ointment! After inunction,
cover part with a thin layer
of gutta-percha tissue.

[QUINQUAUD.]

284.—Ichthyol..... 1 part

Superfatted Pot-

ash Soap 8 parts

Oil Cade..... 2 parts

Externally! Rub into a lather
upon the part.

[UNNA ; PETELLA.]

285.—Ammon. Ich-

thyol..... 6 parts

Precipitated Sul-

phur..... 3 parts

Tannic Acid... 1 part

Zinc Oxide..... 20 parts

Wheat Starch.. 20 parts

Vaselin..... 44 parts

Paste! Use as inunction.

[V. SEHLEN.]

286.—Ichthyol.... 5 parts

Benzonated Zinc

Ointment... 100 parts

Sulphur..... 5 parts

Red Mercury

Sulph..... 1 part

Carbolic Acid. 5 parts

Ointment! [BROOKE.]

Combine with ablutions and lathering with alkaline Ichthyol-
Tar soap and the following :

287.—Ichthyol 10 parts

Soft Soap..... 10 parts

Salicylic Acid..... 3 parts

Lanolin..... 20 parts

Ointment! Apply evenings.

[EICHHOFF.]

288.—Ichthyol 1 part

Oil Cade..... 1 part

Soft-Soap. 1 part

Vaselin (or Lanolin)..... 8 parts

Ointment! Apply evenings.

[HEUSS.]

Sycosis Trichophytina.**289.—Ichthyol**

Vaselin Lead-Ointment..... Equal parts
Ointment! For dressings.

[NEISSER; FOURNIER.]

Tic-douloureux.—See Ischias and Arthritis.

Tremens.—See Alcoholism, Chronic.

Toothache.—See Odontalgia.

Tuberculosis.

Preliminary Communication upon the Treatment of Pulmonary Tuberculosis, by Dr. Moritz Cohn, Hamburg:

"In view of the sad experience during the last few years in the therapy of pulmonary tuberculosis, it is with no little hesitancy that I offer for publication a method of treatment with which I have obtained most favorable results among the laboring and poorer classes. These patients cannot be sent to the mountains or to the sea. Even the long-continued employment of creosote is too expensive, and in large doses it is often badly borne. Cod-liver oil, especially in summer, frequently produces intestinal disturbances and loss of appetite. I therefore determined to try Ichthyol, because of its antibacterial action and its favorable influence upon digestion, and I was in the highest degree surprised by its effectiveness. I have now treated with this remedy more than 100 cases. In connection with proper diet and correct modes of life, I have seen no evil consequences during the whole of the treatment, extending over a period of more than two years. In the interest of suffering humanity, I would request my colleagues to institute the treatment in those instances in which it is appropriate. It must here be remarked that in those cases in which no evidence of disease could be detected after treatment, which must be continued for a period of at least one year, the favorable results were not attributed by me to the direct effect of the employment of Ichthyol, but to the remarkable increase in nutrition following the use of this medicament.

"Because of its cheapness and readily absorbable nature, I prescribed the remedy in the following manner:

290.—Ichthyol

Distilled Water.....Equal parts

"I began with 4 drops 3 times a day, increasing to 40 drops daily. For children of 5 to 12 years of age, about one-half the above

amount was allowed. It is best administered before meals, some black coffee being subsequently given to correct the disagreeable taste. Some of the patients could only tolerate the medication in the morning after breakfast, and this I permitted. If the patients are diligently persuaded, they soon become accustomed to the disagreeable taste. The increase in dosage is secured by allowing the patients to take 1 drop extra each day until the highest desired number of drops is reached, at which number it is to remain. An important point, which I desire especially to emphasize, is that the drops can only be taken in a large amount of water, from a wine-glass to half a tumblerful, according to the quantity given. In practice among the better classes, pills and inhalations were employed, though, in this connection, I must say that the effectiveness of the former is decidedly of less degree. Eructations, of which the patients complain in the early part of the treatment, are of just as intense a character after the use of pills as after the administration of the watery solution. The publication of detailed clinical histories I must postpone until a later date. In the mean time I hope some of my colleagues will convince themselves of the effectiveness of Ichthyol in appropriate cases in which circumstances will not permit of a sojourn at some of the health resorts."

"Deutsche medizinische Wochenschrift," 1894, No. 14.

Tylomata.

- 291.—**Ichthyol** 1 part
 Diachylon Ointment (Hebra) 1 part
 Lard 1 part
 Lanolin 2 parts
 Ointment! After a foot-bath with warm water and soap,
 rub in the salve.

[UNTERBERGER.]

Typhlitis.—See Perityphlitis.

Typhus Abdominalis.

292. **Ichthyol** 2 to 5 dr. (0 to 20 Gm.)
Distilled Water..... 8 pints (1.5 liter)
 As enterocolyema once daily in the initial stage.

In addition, internally:

- 292a. **Capsules, Ichthyol**, 4
 min. (0.25 Gm.)..... No. 40
 1 or 2, three times a day.

[PETELLA.]

Ulcus Cruris.

293.—**Ichthyol**..... 4 parts
 White Gelatin.. 7 parts
 Zinc Oxide..... 5 parts
 Glycerin 9 parts
 Distilled Water 15 parts
 Paint! Heat, then paint on
 the parts.

[UNNA.]

294.—**Ichthyol**..... 8 parts
 Vaseline..... 7 parts
 Ointment! After washing
 with carbolic-acid solution,
 apply freely, rub in well, and
 bandage.

[SOMMERFELD.]

Ulerythema Centrifugum.

295.—**Ichthyol**
 Distilled Water..... Equal parts
 Paint on and allow to dry.

[UNNA.]

Paint and cover with a thin layer of absorbent cotton,
 which, after drying, gives a firmly adhering varnish-like
 covering.

[V. SEHLEN.]

296.—**Ichthyol**..... 1 part
 Spirit Soft-Soap..... 1 part
 Distilled Water..... 18 parts
 For dressings after operation.

[UNNA.]

Urticaria.—See Erythema.

Vaginitis.

297.—**Ichthyol**..... 1 part
 (Glycerin or Distilled Water). 9 parts
 Externally!

[BAGOT.]

298.—**Ichthyol-Zinc**
 Vaseline..... Equal parts
 Paint (in inveterate vagini-
 tis)!

[DOBRONRAVOW.]

299.—**Ichthyol-Sodium**
 Distilled Water
 Equal parts
 Use on cotton tampons. Place
 in the vagina every second
 day (in chronic catarrhal
 vaginitis).

[DOBRONRAVOW.]

Varices.—See Ulcus Cruris.

300.—Ichthyol 2 to 4 parts
Distilled Water To make 15 parts
Paint upon the varices ! [BROOKE.]

Or :

300a.—Paint with pure Ichthyol. [LANGE.]

Vulvitis.—See Eczema and Pruritus Vulvæ.

Warts.—See Condylomata Acuminata.

Whites.—See Fluor Albus.

Wounds.

After disinfection, cover with **Ichthyol Plaster** and
paint with flexible colloidion. [V. SEHLEN.]

REMARKS.

In general, before the application of the medicament, it is advisable to wash the affected parts each time with warm water and soap, and then to gently dry. After inunction or painting, the parts are best covered with cotton, wool or flannel and gutta-percha tissue. Eczema and the like may contra-indicate previous ablutions in certain cases. Inunctions and embrocations are best employed night and morning.

For the methods of deodorizing and of disguising the taste of Ichthyol, see "Deodorization," etc. (following Formula No. 54).

If not freshly prepared, the weak solutions of Ichthyol employed for subcutaneous injections must, according to experiments carried out in Prof. Loeffler's laboratory, be previously sterilized by boiling for a short time.

If treated as soon as possible after their occurrence, the *stains* upon the bed-linen and clothing soiled during the employment of Ichthyol may readily be removed by boiling in soap and water, or by washing with potash soap or soap spirit.

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Medical and Surgical

REPORTS

ON

ICHTHYOL.

All those who carefully read the following pages will find therein ample evidence that **ICHTHYOL** is an excellent reducing medicine, a powerful resolvent, and a most important analgesic; and that, consequently, it will be of great service not only in the diseases already mentioned, but also very probably in other affections associated more or less with hyperemia, enlargement of capillaries, or inflammation.

Moreover, it has been authoritatively suggested that **ICHTHYOL** will find a position in the treatment of affections of the digestive organs and in infectious diseases; as it appears from observations in a great many similar cases that the appetite is increased and the bowels regulated by internal administration of Ichthyol, which possesses also most remarkable tonic properties. Ichthyol can easily be tried internally, as it is quite harmless.

MERCK & CO.

REPORTS ON ICHTHYOL.

INTERNAL ACTION GENERALLY.

“Building up.” Professor ZUELZER, of Berlin, (*Monatshefte f. prakt. Dermat.*, 1886, No. 12,) reports experiments upon human subjects, in which 1-1½ dram of Ichthyol was given *pro die* in divided doses, and no permanent aversion to it was manifested by any of the subjects; on the contrary, when the remedy had been taken two or three days, most of them showed great inclination to take it further. The eructations first caused soon passed off.

The solid constituents of the urine underwent a striking change; they fell from 2-2½ oz. to 1½-2 oz. in 24 hours, showing an average reduction of 11 per cent. Simultaneously with this, the total nitrogen excretion fell about 14 per cent. While, in normal urine, the total sulphur excreted in 24 hours averaged 40 grains, it was but 36½ grains during administration of Ichthyol.

Practical trial of the remedy upon a number of patients in whom one symptom was malnutrition or emaciation, showed in a striking manner that Ichthyol eminently favors the building up of albuminoid constituents of the organism, and limits their decomposition.

Improvement of
general
health.

Dr. CRANSTOWN CHARLES (*Lancet*, 1891, September 26th) says : " Experiments on animals have proved the use of Ichthyol to be quite harmless, for in daily doses of 300 grains it causes only diarrhea. Ichthyol produces an invigorating and antiseptic influence throughout the body, and an astringent effect upon the vessels, for which reason it can be used with advantage in many diseases in which there is dilatation of the capillaries. . . . Increase in weight was noted, together with an improvement of the general health, under administration of Ichthyol ; and I agree with Professor Zuelzer, of Berlin, that by its use the disintegration of the albumins in the system is retarded, and their formation and accumulation favored."

Non-toxic. | Professor BAUMANN and Dr. SCHOTTEN showed that "heroic" doses of Ichthyol, of 150 to 180 grains, were repeatedly introduced into the stomachs of different animals, without the general condition being affected. Diarrhea regularly resulted from still larger over-doses (270 to 360 grains *pro die* in two portions) ; but the animals recovered completely and very rapidly in the course of a day or two.

Harmless,
even hypo-
dermically.

Dr. A. DAMIENS (Thesis presented to the Faculté de Médecine de Paris, March, 1892), in experiments upon frogs and rabbits, under Professor Dujardin-Beaumetz, showed that, hypodermically given, Ichthyol does not produce any

gastric or intestinal disturbance. The rectal temperature, taken after the injections, was lowered for about an hour. The respiration was not affected. The same with the nervous and muscular systems. It was thus made evident that the rabbit could readily tolerate doses of Ichthyol up to 300 grains, and that therefore no apprehension need be felt in administering the remedy subcutaneously to human subject, where $1\frac{1}{2}$ grain was the utmost given at a time.

Other experiments proved the beneficial effect of Ichthyol upon local congestive processes, and quite a series of clinical cases was recorded in proof of the analgesic action of the preparation.

The effects produced by the action of Ichthyol upon the skin were recorded by Dr. P. G. UNNA on the basis of numerous observations which demonstrated these results :

(1) Diminution of heat ; (2) reduction of swelling ; (3) paling of the tissues ; (4) relief of pain.

Dr. Unna found that, in simple breaks of continuity (smooth cuts), pure Ichthyol caused an instantaneous contraction and subsequent scarless union, which really represented the ideal healing of such wounds. A like favorable result was produced in extensive burns of the first and second degree when the blisters were small and unbroken.

General action upon metabolism, and local action on intestines.

Dr. HELMERS (*Virchow's Archiv. f. patholog. Anatomie u. Physiologie*, 1894, Part I) made several series of extremely circumspect experiments upon himself in Professor Zuntz's physiological labora-

tory, with a view of determining what influence Ichthyol exerted upon metabolic change, and what became of the remedy in the organism. The habitual proportions of nitrogen and sulphur in the urine and faeces were first determined and then compared with the elimination under a dosage of 60 to 75 grains of Ichthyol daily.

The results not only prove the innocuous character of Ichthyol, but even show that albuminoid degeneration is retarded. The extension of the observations over several days after Ichthyol administration had been discontinued, revealed the remarkable fact that the sulphur of the Ichthyol takes at least seven days to be completely removed from the organism. Hence the conclusion that the Ichthyol is not simply passed through with the food excretions, but is first absorbed into the system and then again secreted.

These investigations indicate, firstly, an intensive general action of the Ichthyol on its circulation throughout the body; and, secondly, a prolonged local action in the digestive apparatus.

TREATMENT OF PHTHISIS.

Excellent
effect :
always well
borne.

A change of climate being impracticable for many persons affected with pulmonary tuberculosis, and the employment of cod-liver oil or creosote being often unsuccessful—since many patients cannot bear the latter, and the former frequently giving rise to intestinal

disturbances and anorexia (particularly in summer)—Dr. M. COHN (*Deutsche med. Woch.*, 1894, XX, p. 330) conceived the idea of trying Ichthyol, owing to its well-known antibacterial action and its favorable influence on the digestive functions. He has treated more than 100 cases with this remedy in a little over two years, and never has observed any ill by-effects. The cure in cases in which the symptoms of the disease passed away after this treatment (which must be continued for at least a year, is attributed by the author less to the Ichthyol itself than to the remarkably increased nutrition brought about by this medicament. He prescribed it as follows :

Ichthyol	1	Equal parts
Distilled Water	1	

He began with 4 drops, 3 times daily, gradually increasing the dose to 40 drops; to children 5-12 years of age, half these doses were given. The remedy is best taken before the meals and some black coffee drunk after it, on account of its bad taste. The increase of the dose is about one drop for every day. The remedy should be taken well diluted with water (from a wineglass to half a tumblerful).

—At a recent meeting of the Royal Academy of Turin, Dr. SCARPA (*Brit. Med. Jour.*, 1895, No. 1787, p. 51) communicated the results obtained in 150 cases of pulmonary phthisis treated with Ichthyol between April, 1894, and January, 1895. He employed the drug in the pure state, dissolved in the

proportion of one-third in distilled water or any suitable vehicle. Of this solution he gave from 20 to 180 or 200 drops, dissolved in water, in the course of the day.

The remedy was in all cases well borne. No other treatment was employed beyond attention to the hygienic environment and feeding up. Of the 150 cases 23 died; all these were in a desperate condition before the treatment was begun, but even in them the Ichthyol appeared to do good. Of the remaining cases 17 were apparently cured; in 50 there was notable improvement; in 32 there was some improvement; in 28, up to the date of report, the treatment had produced no effect.

The good effect of the Ichthyol shows itself first in the influence which it has on the symptoms produced by the local lesions—cough, expectoration, dyspnea—afterward on the general condition. Physical examination shows profound modifications in the lesions, especially in the circumscribed infiltrations of the early stage, but also not infrequently in those of the breaking-down stage.

ANTISEPTIC ACTION.

Topical
remedy in
inflammation and
suppuration.

Dr. JULIUS FESSLER, assistant to Prof. von Nussbaum, published a volume of 180 pages, describing his experiments regarding the effect of Ichthyol upon micro-organic activity. Having established the complete identity of the erysipelas coccus with that

of ordinary suppuration (*Streptococcus pyogenes*), he cultivated it on bouillon to which various quantities of Ichthyol had been added. The result was that bouillon with more than 1 c.cm. of Ichthyol to 1000 c.cm. of liquid failed to serve as a nutrient medium for this bacterium. Similar effect, though less pronounced, was also observed upon *staphylococcus aureus*. The author confirmed these researches by clinical observations, in which Ichthyol was found to arrest the development not only of erysipelas, but also of other inflammatory processes caused by micro-organisms. It proves, indeed, an excellent general topical remedy in inflammation and suppuration.

Anti-gonorrheal.

At the International Dermatological Congress at Vienna, September, 1892, Professor NEISSER stated that a 1-per-cent. aqueous solution of Ichthyol destroys gonococci.

Diphtheria, Ozæna, Typhus, etc.

Dr. ABEL, Professor Loeffler's assistant, (*Centralblatt f. Bacteriologie*, 1893, No. 13,) says: "In erysipelas and in the purulent discharges brought about by streptococci Ichthyol can, as experience has taught, be most successfully employed. The bacillus of diphtheria is killed by dilute Ichthyol solutions in fresh cultivations; therefore, if Ichthyol should not be suitable for the therapy of diphtheria (where, however, it deserves a trial), it ought still to find employment as a prophylactic, both as a gargle and as an internal medicament. Ichthyol has also rendered good service in the treatment of typhus and of ozæna."

DERMATIC USES GENERALLY.

Various
skin
diseases.

Dr. UNNA, who first introduced Ichthyol into therapeutics, pointed out, in 1885, (*Arzt. Vereinsbl. f. Deutsch.*, No. 158,) that by adding some Ichthyol to the ordinary antieczematous remedies, excellent results were obtained; absorption was accelerated, especially in the weeping eczema of children. (Ichthyol has, moreover, the same beneficial influence as sulphur on all alterations of the epidermis, and especially on eczema, rosacea, prurigo, pityriasis, seborrhea, ichthyosis, and desquamation after acute exanthemata; the same favorable effect is also produced in cases of psoriasis.)

Dr. Unna further recommends the internal use of Ichthyol in rosacea and acne (8 to 30 grains daily). In rosacea with eczematous tendency, it is preferable to combine its internal administration with the external use of ointments, pastes, or varnishes containing only a very slight percentage of Ichthyol; whereas, in those forms tending toward acne, Ichthyol can be applied externally with a free hand, as in these cases its action is only slowly developed through the thickened epidermis. Also nervous eczema is a favorable field for the internal and external use of Ichthyol, as shown in some of Dr. Unna's cases in which both iodine and cod-liver oil had been tried unsuccessfully. For erythema multiforme and lichen urticatus, Dr. Unna recom-

mends the external application of undiluted Ichthyol or of strong solutions. For intertrigo, superfatted soap or an ointment containing 10 per cent. Ichthyol was used, as well as in pityriasis and seborrhea. For furuncles of the scalp the use of a 10-50-per-cent. Ichthyol ointment proved successful ; or a combination consisting of equal parts of superfatted potash soap and Ichthyol was preferred in some cases, because the formation of a lather by rubbing with the soapy ointment is cleaner, and can be used by day even on uncovered spots, such as in the beard and on the neck. As to psoriasis, Ichthyol is often useful, partly to avoid the production of erythema and boils, and partly as an intermediate treatment when the stronger remedies must be abandoned on account of symptoms of irritation. It is also useful by internal administration when arsenic has produced catarrhal symptoms. In lupus, a 5-10-per-cent. ointment of Ichthyol is recommended for the after-treatment, as it bleaches the skin and disperses the scar. The formula preferred by Dr. Unna in sycosis is : Superfatted Potash-Soap, 2 parts ; Oil of Cad., 2 parts ; and Ichthyol, 1 part.

Among the cases which Dr. Unna presented to the Congress for Internal Medicine, held at Wiesbaden in April, 1885, was one of *lepra tuberosa*, in which a cure was effected by the use of strong Ichthyol preparations (50 per cent.), with simultaneous internal administration of Ichthyol.

Prurigo,
Pruritus,
Ulcers.

Dr. LORENZ (*Deutsche Med.-Zeitung*, 1887, No. 59) describes a case of itching and burning of the skin, diagnosed as prurigo, against which nearly the entire list of approved remedies had been vainly prescribed for over ten years. It was then treated by warm soaping and Ichthyol. On the next day the patient reported that she had hardly any itching and could sleep well. The treatment was continued for a fortnight, and no relapse occurred during months after, as long as observed. Equal results were obtained in pruritus, especially when complicated with vulvitis, by a 10-per-cent. aqueous solution. The same did good service in indolent ulcers. In other instances ulcers were smeared with Ichthyol ointment (1:10), and left uncovered or protected with simple wool or oiled silk. A still better method was to spread the ointment thickly on lint or linen and lay on the sore, renewing once or twice daily.

Chilblains. | Excellent results were obtained by Dr. KLONK (*Deutsche med. Wochenschrift*, 1886, No. 9) in the treatment of chilblains with a liniment of equal parts Ichthyol and turpentine.

Dr. W. G. MACPHERSON, of the Army Medical Staff, writes (*British Med. Jour.*, 1891, February 28th): "The unguentum Ichthyoli (30 per cent., with lanolin or vaselin) relieves the excessive irritation in chilblains completely and rapidly, and its continued use will cure the condition."

Ulcerated
Eczema.

"I saw most surprising effects," says Professor VON NUSSBAUM (*Monatshefte f. prakt. Dermat.*, 1886, No. 11), "in eczematous ulceration accompanied by great itching. The numerous remedies used by dermatologists had been tried for months without success. Under Ichthyol the itching abated rapidly the first night, and the ulcer afterward healed within a short time." An eczema of some years' standing, and extending over the entire leg, was rapidly improved under Dr. ACKERMANN'S hands by the use of Ichthyol ointment.

Numerous
Skin
diseases.

Dr. ZEISLER gives a long list of skin diseases (*Chicago Medical Journal*, 1886, December)—eczema, acne, sycosis, herpes, prurigo and pruritus, psoriasis, seborrhea, etc.—in which he had used Ichthyol ointment (3–30 per cent.). In the cases of acne, Ichthyol soap was also found useful, combined with the internal use of Ichthyol. In acne varioliformis, he used successfully a 10-per-cent. Ichthyol ointment with an addition of 5 per cent. hydrarg. ammoniat.

Similar results were chronicled by Dr. LARTIGAN (*Le Progrès médical*, 1887, No. 11), who employed the remedy in eczema, lichen, urticaria, herpes, and pityriasis.

Carbuncle.

Dr. JULES FÉLIX (*Arch. d. Méd. et d. Chir. pract.*, 1888), in carbuncles, applied a thick layer of 25-per-cent. Ichthyol ointment, with ung. camphoræ for a base, and an antiseptic dressing. Subsequently the small white points of suppuration

were treated with caustic stick, and the ointment continued until the kernel could be removed. The cure generally required a fortnight. The inflammation and pain were always promptly reduced by the ointment.

Various dermatoses; also Whitlow. Prof. N. O. GADDE describes in detail (*Therap. Monatshefte*, 1890, No. 3) cases of rosacea, herpes zoster, urticaria, purpura erythema, etc., in which he successfully employed Ichthyol. By rubbing in a 50-per-cent. ointment, this author on several occasions arrested incipient whitlow.

Skin diseases generally; and Burns. Dr. MUELLER used ointments from 5 to 20 per cent. (along with internal treatment) against nearly the whole range of skin diseases (*Australas. Medical Gazette*, 1890, September 15th), including cases of carbuncle; where, however, stronger preparations were used. One of the cases had enormous varicosity of both legs; one of which was covered with eczema, and was the seat of two fast growing ulcers. After leeching and poulticing, a soft elastic cotton bandage, soaked in 15 per cent. Ichthyol lotion, was applied tightly. The leg was placed on gutta percha, and the dressing kept constantly wet with the lotion. In twenty-four hours the violent pain was gone, the swelling greatly reduced, and the angry bluish color changed to a faint red. In a month the ulcers had healed, and the eczema was gone.

In pruritus pudendorum and prurigo, warm

baths and Ichthyol ointment locally (combined with internal treatment) effected gradual, steady, and complete cures.

The author considers Ichthyol superior to any remedy for lesions of the skin by heat. Though slightly painful at first when applied to the raw surface, the addition of a little powdered opium overcame this objection. Dressing was not required frequently, and new skin grew with surprising rapidity.

Dr. CHAS. J. R. McLEAN (*British Medical Journal*, 1889, March 9th) used Ichthyol in the following classes of cases with marked success :

<p>Eczemas, Erysipelas, Urticaria, Furunculosis.</p>	<p>“ <i>Simple Erythematous Eczema.</i>—Before the vesicles develop, I have found Ichthyol a superior remedy to any other. If the hands or face are affected, they should be washed as seldom as possible, and then only with warm soft water to which has been added a little soft oatmeal or glycerin. After washing and careful drying, I apply a little glycerin solution (3 j. in 3 j. distilled water). I then apply Ichthyol solution, varying in strength as regards the position and the stage of the disease. In simple erythema a solution of 3 j. in 3 j. of distilled water is a proper strength, painted on with a camel’s-hair brush once in four hours. If the itching is very severe, the solution may be applied, say once in every two hours, for three applications ; it will very soon allay the itching.</p>
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“*Scaly Dry Eczema.*—An ointment in this stage of eczema is preferable, as it softens the epithelium better; say 3 j. of Ichthyol to 3 j. of vaselin, or with a little lanolin added.

“*Weeping Eczema.*—If the Ichthyol solution is applied at the early stage of the ‘weeping,’ before there is much raw surface formed, it will control any further exudation; repeating in three or four hours until the part dries up; but if there is much tender surface it is better to apply the ointment for the first 24 hours or so, as then the solution causes some smarting.

“*Simple Erysipelas.*—If caught in the early stage this is the best external application I know of; it allays the burning sensations, and either aborts or limits the attack. The solution (3 j. in 3 j.) should be painted on every four hours, forming a complete protective layer over the part. I have used an ointment in some cases, but prefer the solution, as it dries quickly.

“*Urticaria-like Eruptions.*—To be of any good this remedy must be applied early, before there are many watery blebs formed; each area should be painted with the solution during the short congestive stage when the slight itching begins.

“*Furunculosis.*—Here I use a strong solution (3 j. in 3 ss.) applied once every two hours for three or four applications, and then once every four hours; it always reduces the base of the boil in size, and often aborts it altogether if applied early.

With this external treatment I give sulphide of calcium in quarter-grain doses every two or three hours for 12 hours, and then three or four times a day."

Surface
lesions and
various der-
matoses.

Dr. CRANSTOUN CHARLES (*Lancet*, 1891, September 26th), from an experience with Ichthyol of over three years, was convinced of its great advantages. He prescribed a 2-10-per-cent. ointment, with lanolin as base, in burns and scalds, as well as in the erythemata due to exposure to great heat. Acne, chilblains, intertrigo, herpes zoster, eczema, sycosis menti, psoriasis, pityriasis capitis, prurigo senilis, boils, and carbuncles were treated with Ichthyol ointments and lotions of varying strengths, as well as Ichthyol soap. Sometimes systemic treatment was found to be simultaneously necessary, and then Ichthyol was given internally also.

Ulcers of
leg.

Dr. JOS. HARTMANN (*Corresp.-blatt f. schweizer Aerzte*, 1891), in ulcers of the leg, used highly diluted solutions of Ichthyol first, then more concentrated, and finally the pure Ichthyol. The parts, when painted, were covered with wool, over that an unstarched gauze bandage, and over all the stocking. The dressing is changed as soon as any unpleasant burning pain is felt; even the first time this is done the ulcer is found to present a cleaner and healthier appearance. As the case approaches cure, the dressing can be left on much longer, up to a week or fortnight. Rest,

of course, favors the cure, but the same result is eventually attained even though the patient move about. Dr. H.'s cases healed with a firm and lasting cicatrix, with the surrounding skin of fresh, normal appearance.

The same ;
and
Eczemas. [Dr. L. DUNCAN BULKLEY (*Jour. Amer. Med. Assoc.*, 1889, No. 10) states that an Ichthyol lotion (10-15 m. in $\frac{3}{4}$ j.) exercises a remarkable effect upon ulcers of the leg. The affected part was kept moistened by the solution, and the dressing covered with a thickness of woolen material (not impermeable), to prevent too rapid evaporation. In eczemas (moist) he found light bathing with a weak solution of Ichthyol (10 m. in $\frac{3}{4}$ j.), followed by a calamine and zinc lotion, gave better results than the latter alone. Eczema of infants was remarkably benefited by continuous use of a zinc ointment, containing 20 m. of Ichthyol and 15 to 20 grains of salicylic acid per ounce.

The formula of Uña (see formula No. 293) is much approved in the treatment of *ulcus cruris*.

Internally,
in Acne
Rosacea. [Dr. MALCOLM MORRIS wrote (*Clinical Journal*, 1892, November 15th), with respect to acne rosacea: "Ichthyol acted well, bringing about a marked improvement after only a few days' administration. It regulates the bowels, prevents flatulence, helps the digestion, stops the reflex flushing, improves the circulation, and, in short, more or less quickly relieves all

those symptoms so common and so distressing in acne rosacea. I usually begin by ordering 5 grains to be taken on an empty stomach early in the morning and late at night. After this I increase the dose in a few days to $7\frac{1}{2}$ grains, then to 10 grains, and so go on increasing until the desired results are obtained. I do this because I find different people react so differently."

Permanence of cures. Details of procedure in Acne. | Prof. ERNST SCHWIMMER, of Budapest, from an experience of five years with Ichthyol, had opportunity of observing how far the effects of the remedy were permanent. He says (*Wien. med. Wochenschrift*, 1892, No. 29): "It appears beyond doubt that in all forms of disease where the desired success was obtained, the effect was permanent, and the cure in every sense satisfactory." Among the forms treated by the author were a number of erythemata. Comparative experiments with Ichthyol (painted on in aqueous solution) and ordinary expectant treatment showed the superiority of the former; the healing being complete in five to six days. The same conclusion was reached when the Ichthyol treatment was tried side by side with sulphur or bismuth applications.

As regards acne, Prof. S. expressed the opinion that the nodular disease must be converted into a superficial inflammation of the skin before Ichthyol could have its proper effect. He applied a paste of milk of sulphur, naphthol (5 parts of each), soft soap

(10 parts), and lard (20 to 30 parts), for one or two hours in the evening for several days. Before retiring the parts were washed with warm water and powdered with any suitable dusting powder. In this way, after a week or two, the acne nodes were entirely got rid of, and only a diffuse inflammation of the skin left. Now, Ichthyol solution was applied two or three times a day, or ointment at night, and the hyperemia was soon reduced.

175 dermic cases. Dr. KOPP, from 175 cases treated by him with Ichthyol, draws the following conclusions (*Münch. med. Wochenschrift*, 1889, Nos. 35 and 36):

“1. The *external* employment of Ichthyol was successful in many acute and chronic inflammatory affections of the skin and dermal organs, especially in acne rosacea, in burns, in frost-bites, in erysipelas, in many forms of eczema, and in the so-called neurotic eczema.

“2. The *internal* administration of Ichthyol pills had, in a large number of dermatoses, a favorable influence, which must be traced to regulation of the digestive apparatus, and to improvement of the general nutrition and of the blood formation by the internal treatment. Doses of 15, 25, and 30 grains *pro die* given by me were without any deleterious side-effects.”

Variola. Dr. R. PELLEGRINI (*Terapia moderna*, 1891) has employed Ichthyol with good results as a topical application in the pustular stage of variola.

Three, 5, and 10 per-cent. solutions were applied two to four times a day by means of a brush to the pustules and adjacent skin. This treatment hastened the drying of the pustules, checked extensive suppuration, and prevented pitting.

Infantile Eczema, Lichen, etc. | Prof. J. SCUDDER DAVIS, Chicago, says (*Eclectic Medical Journal*, 1893, No. 3): "Ichthyol has given considerable satisfaction in infantile eczema. In moist eczema Ichthyol should be used in lotion, either alone or in combination with zinc oxide, while an ointment is the most valuable in the dry forms. In lichen urticatus of children the itching was subdued by applications of a solution of Ichthyol and extract of hamamelis, one to four. A formula for ointment which can be strengthened or weakened according to indications, and one that will be found beneficial in any dry eczema, is the following: Ichthyol, $\frac{1}{2}$ dr.; zinci oxidi, $1\frac{1}{2}$ dr.; resorcin, 6 gr.; vanillin, q. s."

Procedures in Acne and Vesicular Eczema.—Keloids and Elephantiasis.

Dr. MORGAN DOCKRELL (*Medical Press and Circular*, 1892, December 7th), in acne, prescribed steaming for half an hour, washing with warm water and Ichthyol soap, and application of a 40-per-cent. Ichthyol collodion or varnish. (Herewith, internal administration of Ichthyol was combined.) In the first stage of acne rosacea it was sufficient to cover the face with the lather of a superfatted Ichthyol soap, allowing it to remain all night. In the second stage Dr. D. used resorcin (40-per-cent. varnish or

paste) ; *and then*, when acute dermatitis had been set up, Ichthyol solution (2½-10 per cent., according to sensitiveness) was resorted to with satisfactory results. In some forms of dermatitis, due to ordinary applications (chrysarobin, resorcin), Ichthyol was found useful as an adjunct to the irritating agent.

Among eczemas, the best results were attained in recurrent vesicular eczema, especially such as occurs on the back of the hands. The vesicles, before rupturing, were touched with the pure remedy and painted over with 40-per-cent. Ichthyol varnish. This was removed at the end of forty-eight hours, and 30-per-cent. Ichthyol gelatin applied. This gradually rubbed off in a week, and the surface was found well. To prevent recurrence, the use of 10-per-cent. Ichthyol soap proved useful. When the vesicles had already ruptured, the remedy was applied in a weaker form, best combined with oxide of zinc (see Una's formula, p. 20). In erythematous eczema of the face, improvement was rapidly effected by application of Ichthyol (20 per cent.), oxide of zinc (10 per cent.), and bassorin (70 per cent.).

Among the many classes of cases described by the author as benefited by the use of Ichthyol, are Alibert's keloid and elephantiasis arabum ; in the former, marked shrinking, diminution in area, and general softness were brought about by persistent application of 30-per-cent. Ichthyol gela-

tin; and in the latter marked improvement took place under pure Ichthyol twice a week.

TREATMENT OF ERYSIPELAS.

Ichthyol collodion. Dr. UNNA (*Dermatologische Studien*, 1886) recommended the formula No. 101.

Ichthyol collodion (1 part of the remedy with an equal volume of ether and 2 parts of collodion) was used by Dr. VON BRUNN (*Therap. Monatshefte*, 1889, No. 5) with complete success.

—Dr. A. BILJEFF (*Mosk. med. Rund.*, 1888, among others, records a case in which the entire leg of a child was involved; Ichthyol collodion was painted all over the affected skin, and about an inch beyond, and the member was enveloped in wool. The night was passed quietly, and the next day the child could be taken from bed; the disease did not progress, and a cure was soon effected.

Ichthyol ointment. Professor VON NUSSBAUM (*Dermatologische Monatshefte*, 1886, November 11th, and *Allgem. Wien. med. Zeitung*, 1887, No. 1) first disinfected the area and provided a complete and effective discharge of the matter. Then the seat of disease was painted with a 50-per-cent. ointment of Ichthyol, and covered with 10-per cent. salicylated wool. Under this treatment the erysipelas rapidly disappeared. All his cases treated with Ichthyol terminated satisfactorily.

—Dr. C. KOPP (*same journal*) used a thick layer of 30-50-per-cent. Ichthyol-lanolin ointment spread on

lint. In four cases cure was effected within two or three days, while in five others five or six days were needed. In no case did the inflammation spread in any considerable degree after beginning the treatment.

—Dr. W. N. SOROKIN (*Mosk. med. Rund.*, 1888) describes erysipelas occurring as a sequela to carbuncle. Ichthyol ointment (50 per cent.) was rubbed into the reddened edges of the affected skin, and on the evening of the same day the febrile temperature fell to normal, and the other subjective symptoms were likewise alleviated.

Collodion
or ointment.

The combination of Ichthyol and collodion was used by Dr. W. L. SHADKEWITSCH and by Dr. J. JELIN (*same journal*) in a number of cases: though occasionally they found the ointment preferable, especially in the treatment of the face. The disease had, in their various cases, attacked different parts of the bodies of the patients; but in each instance the application of Ichthyol was followed first by arrest of the morbid process and then by rapid healing.

Ethereal
solution.

Dr. M. LORENZ (*Deutsche Med.-Zeitung*, 1887, No. 59) describes the excellent results of Ichthyol treatment in erysipelas of considerable extent and severity, involving the head and neck. The treatment consisted simply in painting with a mixture of 2 parts of Ichthyol with 1 part each of ether and glycerin.

Compara-
tive results
of various
treatments

From an elaborate study of the results yielded by treating erysipelas : (1) with ice, (2) with tar, and (3) with Ichthyol collodion, Dr. C. ULRICH concluded (*Hospitals Tidende*, 1889, October) that the last-named was unmistakably the best in almost every respect. The fact that relapse did not occur under the Ichthyol treatment, while it was not infrequent in those cases treated with ice or tar, indicates a greater anti-parasitic power on the part of the Ichthyol.

Specific
action.

Dr. S. KLEIN, assistant to Professor Stolnikow, used Ichthyol in form of a 50-per-cent. vaselin ointment in the treatment of erysipelas, during over two years, in 31 cases, of which 18 were severe. His conclusions are (*Berl. klin. Wochenschrift*, 1891, No. 39) :

“1. Ichthyol has undoubtedly a restraining effect upon the development of the erysipelas coccus, either by an immediate influence on the micro-organisms or by its reducing action on the tissues, or by both together.

“2. It shortens by a half the average duration of the attacks.

“3. The duration of the treatment amounts to three or four days.

“4. The disease runs a much milder course under Ichthyol, as seen in the altered type of fever and often in the fall of temperature.”

All cases
ran but
four days.

Dr. T. CRANSTOWN CHARLES (*Lancet*, 1891, September 26th) usually had first a brisk purgative given; then the affected surface was well washed with Ichthyol soap and hot water, and covered for three hours with lint soaked in corrosive-sublimate lotion. After this, the inflamed area and some part of the surrounding healthy skin was smeared with equal parts of Ichthyol and lanolin, and enveloped in salicylated cotton. In some of his cases, the remedy was also given internally at the same time, and a 30-per-cent ointment applied. The patients always became well in four days.

Aqueous
solution
alone

Prof. ERNST SCHWIMMER (*Wien. med. Wochenschrift*, 1892, Nos. 29, 30), had an aqueous solution (Ichthyol 1 part, water 3 parts) *exclusively* used in the treatment of the disease, including the severest forms. The inflamed and swollen parts, with some portion of surrounding tissues, were painted two or three times daily with the lotion. Where the face was affected, the œdema of the eyelids and swelling of the cheeks rapidly diminished, as did also the redness and general febrile temperature. In his conclusions Professor Schwimmer ascribes to Ichthyol *a true specific action* upon the erysipelas cocci, and thereby upon the course of the disease.

Marginal
application
of pure
Ichthyol

Dr. MORGAN DOCKRELL (*Medical Press*, 1892, December 7th) applied pure Ichthyol along the margin of the affected

area, extending an inch toward the center and a similar width over the unaffected skin; the rest of the inflamed surface was painted over with 30-per-cent. Ichthyol gelatin. In his eight cases no spreading took place after the application, and the patients got speedily better.

Continue
uniformly
till all
external
symptoms
have dis-
appeared.

Dr. S. T. RADCLIFFE, Washington,
(*Therapeutic Gazette*, 1892, No. 5,) says:

"In three days after treatment was begun
the improvement was manifest, and the
fever never rose after the second day,

but gradually declined. The Ichthyol is not at all unpleasant. It does not stain the skin, and is easily washed off. Any spot of it on the garments is easily removed by washing. The best form is an ointment of equal parts Ichthyol and vaselin or lanolin; or equal parts of Ichthyol, lanolin, and water will often be better where a large surface is under treatment. I have this applied uniformly over every part of the erysipelatous inflammation (even ears, eyelids, etc.), and repeat this at least twice daily (*without* washing!). In three days, on washing it off with a little tepid water, and with or without a little lather of fine soap, it will be found that the swelling has subsided, and the erysipelatous process has been arrested, except perhaps on the extreme borders, when it will suffice to apply the Ichthyol only to the outskirts. But a better plan is to continue the application (*without* washing) until the sixth day, or until all traces of the

disease externally have disappeared. This will not be beyond the fifth or sixth day."

SURGICAL AND OTHER EXTERNAL USES.

An innocuous and efficacious granulator, etc.

Dr. UNNA stated, as early as 1886, that Ichthyol could be left in wounds without any danger whatever; that, on the contrary, it exercised a beneficial effect as a desiccant and astringent. He made use of it for furthering union in abscesses, hydroceles, etc. It was found preferable to tincture of iodine, in being absolutely harmless, and in causing hardly any pain.

Simple fissured wounds of the scalp could be treated by merely brushing them over with undiluted Ichthyol; without the use of sutures or bandages, the wounds healed well and promptly without the least pain or inflammation. By painting undiluted Ichthyol over sutured wounds, scarcely visible cicatrices were produced. In sprains, contusions, blisters, etc., weak aqueous solutions of Ichthyol (10 to 45 m. to 3 j.) were used with benefit in compresses firmly applied, kept moist by frequent additions of the solution, and protected by impermeable tissue.

Chafing;
Burns;
Coryza;
Boils: etc.

Dr. M. LORENZ (*Deutsche Med.-Zeitung*, 1887, No. 59) detailed traumatic cases in which the best results were obtained by rubbing in a 10-15-per-cent. Ichthyol ointment with petrolatum. A 1-per-cent. ointment was used in the chafing of infants, and for burns of slight

intensity; more severe burns were treated with 2-10-per-cent. aqueous solutions, which aggravated the pain at the outset, but soon entirely removed it.

Coryza was benefited by 1-10-per cent. ointments with petrolatum, which were applied to the nose both externally and internally. Stronger mixtures were found necessary in boils, ulcers of the finger, etc.; pain was always alleviated, and the course of the trouble hastened toward cure.

Contusions. Dr. C. CHARLES applied 30-per-cent. alcohol-etheral solutions of Ichthyol, twice daily, to severe contusions of the face and shoulders. The result was most satisfactory, pain rapidly disappearing, as well as the swelling.

—Dr. ACKERMANN, in contusion of the ankle, had the part first shampooed with Ichthyol ointment, and then dressed with cotton moistened with the preparation. In a few hours the intense pain had disappeared, and two days later the patient had recovered the use of the foot.

White Swelling. Professor VON NUSSBAUM, in painful tumor of the knee with pronounced parasynovitis, local heat, and pain, ordered Ichthyol ointment to be painted on, and a dressing (10-per-cent. salicylated cotton) to be applied. All previous treatment had proved futile; but, by the second day of the Ichthyol application, pain had disappeared; on continuing treatment, the affection gradually improved, and the pain never recurred.

Peritonitis | Dr. GÜNTHER (*Corresp.-blatt für schweizer Aerzte*, 1892, No. 8) reports a bad case of typhlitis and perityphlitis, in which, from premature exposure, a subacute peritonitis survened. He says: "In the course of a few hours the body was swollen to the size of a cask; a marked general meteorism developed, the stools were retained, and no flatus passed; the pulse rose to 120, the temperature to 102° F.; respiration was rapid and superficial, the condition drowsy, vomiting was not to be allayed and was partly feculent in character; there were characteristic prostration, and tenderness over the whole abdomen. After this condition had persisted for several days in spite of opium and ice treatment, I made the suggestion that the whole abdomen should be painted with pure Ichthyol by means of a soft brush, and protected from external evaporation by a coating of gutta-percha. This was done; all other treatment being avoided. After a few hours the patient felt easier; she slept that night and next morning; 24 hours after the application the abdomen was completely reduced to normal proportions; the tumor of the perityphlitis, which the day before could not be felt on account of the colossal meteorism, could now be distinctly seen; the irritability of the abdomen was confined to the vicinity of the navel; vomiting ceased; stools and flatus passed spontaneously; the pulse fell from 120 to 95, and there was a corresponding improvement in general condition."

Anal lesions. Dr. WILLIGEN (*Nederlandsch Tijdschrift voor Geneeskunde*, 1893, No. 17) employs Ichthyol for troublesome anal fissures and sores. "A brush dipped in Ichthyol is introduced into the anus once daily; the application is not painful, and within one or two weeks a complete cure is effected, even in cases where various other remedies have been tried without success."

In Mumps. Dr. H. STAUFFER (*Sem. méd.*, XIV, p. ccxiv) has obtained rapid disappearance of pain and swelling in mumps by means of inunction with 50-per-cent. Ichthyol-lanolin ointment, mornings and evenings. He employed for each inunction a lump as big as a hazelnut.

TREATMENT OF RHEUMATISM, GOUT, ETC.

Eminently efficacious. Dr. UNNA (*Deutsche Med.-Zeitung*, 1883, No. 17) says: "In my opinion we have not, up to the present time, possessed so effectual a remedy for this dreadful disease (rheumatism), and it is fair to consider Ichthyol an anti-rheumatic of the first rank."

Prompt and incisive action. Dr. ACKERMANN (*Correspondenzblätter d. ärztl. Vereins von Thüringen*, 1885, No. 8) treated, among others, a case of severe chronic rheumatism (which forbade all but the sitting posture) with 25-per-cent. Ichthyol ointment. First the parts were bathed with soap and tepid water, and then the ointment rubbed in. After the first application the almost intolerable pains in the joints

suddenly vanished, never to return, and the next morning the patient was able to walk about in her room. Swelling gradually diminished and, after three weeks, walking for several hours each day became possible.

Instant relief. "In many cases of arthritic pains of long standing which had rendered life a burden," says Prof. VON NUSSBAUM (*Monatshefte f. prakt. Dermat.*, 1886, No. 11), "the severe suffering was instantly relieved, and in a short time entirely removed, by application of a strong Ichthyol ointment (50 per cent.) and covering up with salicylated cotton-wool."

Superior to all other remedies. In solutions of 10 to 50 per cent. Ichthyol has been used for a number of years by Prof. E. SCHWENINGER, principally in rheumatism, lumbago, sciatica, and the like. He characterizes it as "superior to any other established remedy."

"I found Ichthyol curative and anodyne in acute articular rheumatism," says Dr. LEHMANN (*Der ärztliche Prakt.*, 1889, Nos. 24, 25). "The swelling of a joint, or of several, in a leg or arm, with violent pain, could be efficiently combated by Ichthyol locally, where salicylates, antipyrine, acetanilid, phenacetin, and quinine were of little or no avail." In a case of gonorrhœic rheumatism, involving both legs, with various other nervous anomalies, the pains were removed by Ichthyol locally, and the associated nerve troubles were also reduced.

To protect clothing. | To avoid staining the clothing, the author applied unmixed Ichthyol, and then dusted on French chalk to form a firm crust. Over this a simple wool-dressing was fastened.

Spray form. | The Ichthyol-alcoholo-ethereal sprays (10 or 30 per cent.) were used in the Hospital for Nervous Affections, Berlin, under the direction of Prof. A. EULENBURG, with great efficacy, in muscular and articular rheumatisms, when not too severe and inveterate. Prompt and surprising effects were frequently seen in cases of sciatica and lumbago.

Applied pure. | From an experience with Ichthyol extending over three years, Drs. HOFFMANN and LANGE stated (*Therap. Monatshefte*, 1889, No. 5) that in inflammations of the joints, whether traumatic or rheumatic, excellent results were obtained by the following method: The operator's hand was rubbed in with Ichthyol soap, and the affected joint carefully and repeatedly embrocated with the lather; then fairly hot water was poured over five or six times, the superfluous moisture taken up with a sponge, and Ichthyol applied with a spatula so that the entire joint was covered with a dark-brown, smooth Ichthyol layer. Over this a thick layer of wool was applied without any considerable pressure. In all cases the pain was reduced in half an hour. The dressing was renewed in from six to twelve hours.

Internal
and
external use
combined.

Dr. LORENZ describes cases in which rheumatism was treated by the combined internal and external use of Ichthyol. The parts were painted with 50-per-cent. ointment, and 2-5 pills of $1\frac{1}{2}$ grain each prescribed three times a day. Very encouraging results were obtained locally, and the weights of the patients increased markedly and speedily. In other cases, more severe, a lotion of Ichthyol, spirit, and ether (equal parts) was rubbed in, and capsules of 4 grains each were given internally (up to 6 daily). By a fortnight later the joints were reduced in size and less painful, and in four weeks they could be used somewhat. Similarly satisfactory results were obtained in arthritis deformans.

Various
methods.

Dr. CRANSTOWN CHARLES (*Lancet*, 1891, September 26th) witnessed most marked and rapid relief, in five cases of chronic rheumatic pains of joints or muscles, upon thorough friction with 30-per-cent. Ichthyol ointment.

In other cases, washing of the painful spots was made the preliminary to embrocation with pure Ichthyol or with a mixture of lanolin and Ichthyol (equal parts). The application was made twice daily.

The author also describes two cases of acute rheumatism in which Ichthyol was successfully used externally and internally at once. For the topical application in the one case the remedy was dissolved in alcohol and ether (3 parts Ichthyol to

7 of the solvent), and applied to the inflamed joints, which were then enveloped with cotton-wool and oiled silk. In the other case an ointment of the same strength was used. Pain was early alleviated and a rapid cure effected.

The application of Ichthyol and soft paraffin proved most beneficial in three cases of gouty swelling of the joints of the hands. In one of them repeated application of a 5-per-cent. hot aqueous solution did good service.

In another instance a mixture of Ichthyol 20 parts, ether 10 parts, and glycerin 10 parts was applied to the affected joints, and these then enveloped in cotton-wool. After a week of this treatment, a collodion (Ichthyol and ether $\bar{a}\bar{a}$ 10 parts, collodion 20 parts) was painted on. Terebene and colchicum were prescribed internally, and a rapid cure effected.

Vaseline ointment.	Professor HARE says (<i>Hospital Gazette</i> , 1892, December 17th) that Ichthyol is the best local application in acute articular rheumatism, in the strength of 3 j.-ij. to vaselin \bar{z} j. (It is also an excellent local application, in the same strength, in dry, scaly eczema and seborrhea.)
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Internally alone.	Dr. ALFR. GAROFALO (<i>Riforma Medica</i> , 1894, February 28th) undertook a series of trials of the internal use of Ichthyol in chronic articular rheumatism, beginning with a daily dose of 15 minims, increasing to 45 and even 75 minims. He has been very well satisfied, and on
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account of its harmlessness prefers Ichthyol to salicylates.

Compress form.		The external application of compresses moistened from time to time with an aqueous solution containing 5-10-per-cent. Ichthyol, and well covered, is often of great service in articular rheumatism.
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GYNECOLOGICAL USES.

In all inflammatory conditions		Dr. H. W. FREUND, physician to the Women's Wards of the Strassburg University Hospital, states (<i>Berl. klin. Wochenschrift</i> , 1890, Nos. 11 and 45) that Ichthyol is capable of yielding astonishingly rapid and complete cures in chronic parametritis, chronic and subacute perimetritis with exudation, chronic metritis, inflammation of the ovaries and tubes, erosion, and pruritus of the external genitals.
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The remedy was employed at once internally and locally. Internally in the form of pills (1½ gr.), sugar-coated, at first three daily; later, dose doubled. Locally, a mixture of Ichthyol, 1 dr.; glycerin, 2½ oz.; was applied on cotton-wool tampons. For more energetic treatment the remedy was rubbed into the abdomen as an ointment (with equal parts of lanolin) or as a soap (Ichthyol 1 part, soft soap 8 parts); further, it was often given by suppository with cacao butter, each containing 1 to 4 grains of Ichthyol. In erosions, the pure drug was painted on with very rapid success.

"During the internal treatment," says the author, "favorable influence of the remedy upon the general well-being was almost always observed. Above all, the appetite increases in a very satisfactory manner, while digestion is improved and the action of the bowels regulated. The remedy did not exhibit unpleasant effects in any case."

As instances of the remarkable power of Ichthyol to cause absorption of exudations, a number of cases are cited, of which this is a typical one: The patient suffered from the sequelæ of a gonorrheal salpingitis, both tubes having been transformed for years into large hard immovable tumors. Under the energetic application of Ichthyol the peripheral inflammatory products disappeared, the right tube entirely emptied itself, and the left could be easily made out to be free from the uterus. No less remarkable was the anodyne action of the remedy, which was especially conspicuous in inflammation of Douglas's pouch and in such cases of perimetritis as produced tenesmus ani.

Dr. F. is careful to point out that often the pain may be too severe to be treated by intravaginal applications without *previously* employing locally narcotic remedies. If the conditions favored local treatment the author was accustomed to begin with a tampon of chloral-hydrate glycerole (2-5 per cent.) and proceed to the use of Ichthyol only after the excessive superficial sensibility was reduced. When by means of Ichthyol all exudation had then been

absorbed, cicatrices softened, and the uterus rendered movable, massage was resorted to; as also, in some cases, electropathic treatment. In no case was a rational diet neglected. It is the author's opinion that every practitioner ought to try Ichthyol in inflammatory affections of women *before resorting to surgical measures*.

—Prof. E. MONOD (*Annales de la Policlinique de Bordeaux*, 1892, No. 11) recommends, for the treatment of metritis, tampons soaked in Ichthyol 1: glycerin 10.

Decided
benefit in
three-quar-
ters of all
cases.

Drs. REITMANN and SCHÖNATER, assistants in Prof. C. von Braun's clinic at Vienna, report (*Wien. klin. Wochenschrift*, 1890, No. 33) good results in a large number of cases from vaginal tampons impregnated with a 10-per-cent. solution of Ichthyol in glycerin, or from this solution painted on the affected parts. Besides, in extensive pelveo-peritoneal exudation, a 20-per-cent. ointment of Ichthyol with lanolin or vaselin was gently rubbed in over the abdomen; and to patients complaining of poor appetite and indigestion, Ichthyol pills (1½ minima each) were given, 4 to 10 a day. One hundred cases kept under special observation, and the results obtained, are tabulated as follows:

	Cases.	Completely Cured.	Much Improved.	Little Improved.	No Result.
Pelvieo-peritonitis	15	6	7	..	2
Parametritis	40	14	17	6	3
Retro-uterine exudation.	28	10	8	7	3
Salpingo-oöphoritis	17	4	7	2	4
Total	100	34	39	15	12

The authors agree with Dr. Freund that Ichthyol is most commendable for its convenience of application and its reliability.

Quick relief. Dr. R. BLOCH, assistant to Professor Hofmohl, Vienna, uses Ichthyol in the following manner (*Wien. med. Wochenschrift*, 1890, Nos. 50, 51) : First, the parts are cleaned with dry antiseptic cotton, and then Ichthyol-glycerin (1:10) or undiluted Ichthyol is applied by means of a catheter covered with a thick layer of antiseptic wadding impregnated with the remedy. His results are described as most gratifying, the pain being very quickly relieved.

Preferable to iodine. Dr. ALBERTOLETTI, physician to the Maria Vittoria Hospital at Turin, in endometritis, has used Ichthyol mostly mixed with equal parts of glycerin, and applied by means of a

Braun's syringe (*Giornale della R. Accademia di Medicina*, 1891, No. 6). The medicament was always very efficacious, without causing any irritation whatever. In parametritis and perimetritis, tampons soaked with a 10-per-cent. solution of Ichthyol were employed. Never was any injurious effect observed. The author prefers Ichthyol to iodine on this account.

Superior to
any other
remedy.

Prof. EDGAR KURZ, director of the Chirurgico-gynecological Polyclinic at Florence, (*Deutsche med. Wochenschrift*, 1891, No. 43,) at first used Ichthyol according to Dr. Freund's directions; but later on the doses were increased, particularly in torpid cases. Externally, pure Ichthyol was rubbed in over the abdomen; locally, tampons saturated with 10- to 20-per-cent. Ichthyol-glycerin were employed; and internally, three to five Ichthyol pills, containing $1\frac{1}{2}$ minim each, daily. For some cases undiluted Ichthyol was also applied to the vagina and the vulva; but not repeated in rapid succession, as the vagina then easily gets too dry, thereby rendering introduction of the speculum difficult. For endometritis the uterus was first dried, and then pure Ichthyol was applied by pencil covered with cotton. The results are designated as decidedly superior to what could be expected from any other remedy thus far employed for similar purposes.

Examination
properly
absorbed.

Dr. P. L. KÖRSCHER has used Ichthyol in aqueous as well as glycerin solution.

He found the latter more prompt (*Volkmann's Sammlung klinischer Vorträge*, 1891, No. 31). The out-patients were ordered to apply tampons soaked with 10-per-cent. Ichthyol-glycerin, to be renewed once every 12 to 24 hours; the vagina was washed with warm boiled water before introducing a fresh tampon. The patients called at the clinic two or three times a week, when the parts were each time thoroughly cleansed and pure Ichthyol applied. In eight severe cases of cervical catarrh the author was better satisfied with this treatment than with any other. Besides, he has cured 27 cases of chronic endometritis by means of intra-uterine applications of Ichthyol. Of 48 cases of inflammation of the adnexa, 42 were cured by painting with Ichthyol and then introducing tampons two or three times a week. Sometimes baths and lotions were also prescribed.

The author gives additional evidence of the efficacy of Ichthyol in promoting the absorption of exudations. In 18 cases of chronic parametritis, the tumor was pressed as far as possible downward into the vagina, and injected by means of a long needle. In cases of extensive character, 5 c.c., equal parts Ichthyol and distilled water, were injected every two or three days; half as much in less severe instances. The exudations were invariably absorbed after five or six injections. Although the injections were not always painless, the pain soon passed off, and could readily be kept within bounds by a Priessnitz bandage.

The
Adnexa.

Dr. ROBERT BELL (meeting of the
British Gynecological Society, 1891) said :

“In the treatment of disease of the adnexa, which persists after the health of the uterus has been restored, the tampon, which in my hands has proved most beneficial, is one soaked in a 10-per-cent. solution of Ichthyol in glycerin and boric acid, the latter being employed just as in the case of the glycerin of alum, to enable the tampon to be retained for three days without becoming offensive. In Ichthyol we possess a most powerful resolvent, in pelvic cellulitis and inflammatory disease of the adnexa, either with or without hyperplasia. I have also seen it of immense service in promoting absorption when hematocoele was present. Upon this agent great reliance is placed by me in the treatment of inflammatory affections of the pelvis and its contents. I further maintain that no one is warranted in resorting to surgery in disease of the adnexa until he has exhausted, without success, every other acknowledged method.”

Conclusions
from nearly
1000 cases.

Dr. ROM. POLACCO, surgeon to the
gynecological department of the General
Hospital at Milan, (*Annali di Ostetricia e Ginecologia*, 1891,
March, and 1892, August) records an experience of
972 cases, from which he formed the following
conclusions :

“1. Ichthyol is the most powerful analgesic
remedy hitherto known and used in gynecological
practice.

"2. Ichthyol possesses an undoubtedly resolvent action in affections of an exudative character.

"3. In its manifold effects as an analgesic and resolvent, Ichthyol is the most important development of modern therapy for females."

Marked
anodyne
effects.

Dr. W. S. BAGOT, of Dublin, in his private gynecological clinic, as well as in the Rotunda Hospital, found Ichthyol, in glycerin and aqueous 10-per-cent. solutions, very serviceable in the treatment of endometritis and vaginitis. The aqueous solution was very beneficial in the treatment of vulvar eczema. The anodyne effects often were quite marked.

TREATMENT OF GONORRHEA, ETC.

Unequaled
save by sil-
ver nitrate.

Dr. JADASSOHN (*Deutsche med. Wochenschrift*, 1892, September 29th) publishes details of experiments made in the dermatological department of Professor Neisser, University of Breslau, upon both male and female patients. Solutions of 1.5-per-cent. strength were quite well borne by the anterior portion of the male urethra, and up to 10 per cent. by the posterior male urethra, and by the urethra and cervical canal of women. Subsequently solutions up to 7½ per cent. were used for the anterior urethra, and up to 20 per cent. for the posterior urethra; while in women the undiluted substance was applied to the urethra and cervix, without producing any severe pain. One-per-cent. solutions caused only a slight burning,

if any at all ; and even in the case of the stronger, when the strength was increased, gradually the patients became accustomed to it.

The 1-per-cent. solutions exercised a very notable antigonorrhœic influence. In the great majority of cases the gonococci disappeared very rapidly, more so than when other customary antiseptics were used (resorcin, weak corrosive-sublimate solution, potassium permanganate). In a strikingly large number of cases this effect was permanent. The Ichthyol converted the purulent secretion into a thin, serous discharge ; in later stages a large number of epithelia appeared in the preparations, which is a favorable symptom. The odor of the dilute solutions is so slight that it never proved a drawback even in private practice. The author formed the opinion that of all the remedies which have hitherto been tried against gonorrhea only silver nitrate is equal to Ichthyol in efficacy, while the nitrate has the disadvantage of being often strongly irritating even in quite dilute solutions.

Ichthyol did excellent service also in the urethritis of women. In a large number of cases gonorrhœal cervical catarrh was also very favorably influenced.

No complications
caused.

Dr. O. MANGANOTTI (*Riforma medica*, 1892, April 13th), after referring to the antiseptic and anticatarrhal effect of Ichthyol, continues : "I used Ichthyol solutions of 1, 2, 3, and 5 per cent., commencing with the weakest.

The injections were but very slightly painful, and on employment of very weak solutions (1- and 2-per-cent.) practically painless; the bladder, glands, and testicles were not disturbed. According to individual symptoms, I made three to five injections daily; toward the end of the treatment I gradually reduced their number. In all cases the results were very favorable, in acute cases prompt, in chronic cases rather slower, especially if the urinary tract had already been accustomed to other strong injections. The greatest advantage of Ichthyol solutions (1-, 2-, and 3-per-cent.) for injection into the urinary tract is that they cause no complications."

Kills gonococci quickly and safely.

In the *Sanitary Report on the Bavarian Army for the Period from April, 1889, to March, 1891*, it is reported (p. 231) by the Station for Syphilitic Patients in the Munich garrison, that "careful trial proves that Ichthyol is one of the few medicaments which kill gonococci quickly and safely without increasing the inflammatory catarrhal process or affecting the mucous membrane itself injuriously. Twice daily, irrigations were made with 3-per-cent. Ichthyol solution. These never caused inconvenience, while the anti-gonorrhoeic effect cannot be doubted. In acute gonorrhoea Ichthyol is a prompt remedy, and in chronic forms it renders excellent services in many cases where other treatment has failed."

Further
details.

Dr. H. LOHNSTEIN (*Allgemeine medicinische Central-Zeitung*, 1893, No. 103) arrives at the following conclusions :

"1. Ichthyol 0.5- to 2-per-cent. warm irrigations are excellent in acute urethritis, especially when the mucous membrane is hyper-sensitive.

"2. In acute urethritis anterior, especially when superficially circumscribed, Ichthyol applied locally by the endoscope renders great benefit.

"3. In infiltrated chronic urethritis, Ichthyol *alone* does not appear to be sufficient; but when combined or alternated with mechanical treatment it is excellent."

Urethral
injections.

At the *International Congress at Rome*, 1894, in the Dermatological Section, Dr. JULLIEN, surgeon to the St. Lazare Hospital in Paris, recommended formula No. 146. The same mixture serves for tampons, which, in the vagina, act as a separatory wall between urinary tract and uterus.

Urethral
or vesical
injections.

According to Dr. R. VILLETTE, assistant to Professor Colasanti (*Reports of the Institute of Experimental Pharmacology of the Royal University of Rome*, 1894), Ichthyol urethral or vesical injections yield prompt results in ordinary urethritis and cystitis, and in infectious urethral catarrh; particularly in the acute period, when the pain with micturition is intense, and vesical tenesmus is very violent. His directions are: "Inject a 2-per-cent. aqueous solution five or six times daily,

and gradually increase the strength to 5 per cent., according to the patient's tolerance. As the patient improves diminish the number of injections to one in the morning and one in the evening. In acute cystitis, where the usual treatment during the febrile period is internal, the application of 30-per-cent. Ichthyol ointment is very useful to assuage pain. When that passed, *irrigation* should be begun. Inject slowly a quart of half-per-cent. aqueous solution of Ichthyol at 30° C. (86° F.). Irrigate twice during the first few days, and later on but once. In chronic cystitis use a 1-per-cent. Ichthyol solution, once daily."

TREATMENT OF PROSTATITIS.

Injections. | Dr. SCHARFF (*Der aerztliche Rathgeber*, 1892, No. 10) used Ichthyol in inflammation of the prostata. A small syringeful of a 10-per-cent. aqueous solution was injected *per anum* three or four times daily, and always with the most satisfactory results. The inflamed glands returned to their normal size, and entire absence of pain was reported. In forty cases not one abscess was formed.

Compound suppositories. | With equally good results, Dr. K. ULLMANN (*Wien. aerztl. Central Anzeiger*, 1893, Nos. 5 and 6), used suppositories as per formula No. 253.

Simple suppositories. | Dr. A. FREUDENBERG (*Centralblatt für klinische Medicin*, 1893, No. 26) has found

Ichthyol suppositories, as per formula No. 255, a most valuable remedy, especially in the chronic forms, and without any drawbacks. It was nearly always well tolerated; the desire to defecate, which at first presents itself, was overcome in five to twenty minutes, especially if a restful position be maintained. As a matter of precaution he always commences with 5 grains, and rarely goes above 10 grains, to 30 or 40 cacao-butter. It is very important that the Ichthyol be *equally distributed* throughout the mass of the suppository.

TREATMENT OF INFLUENZA AND ANGINA.

Ichthyol being recommended by Professor Ewald in diseases of the throat, Dr. LORENZ (*Berl. klin. Wochenschrift*, 1890, No. 15) employed inhalations of the steam spray of a 2-per-cent. aqueous Ichthyol solution, twice daily, in "grip," in 110 cases, 30 of which were cured in two days, while in the remaining 80 the symptoms were promptly alleviated from the first inhalation. The solution, besides being inhaled as above, was pretty constantly sprayed into the atmosphere of the rooms. Expectoration ceased on the second day, and the cough after six to ten inhalations. Excretion from the nose was lessened from the first, and ceased entirely after about ten or a dozen inhalations.

Two to five 1½-grain Ichthyol pills, twice daily, were at the same time prescribed for all those patients that complained of dyspepsia. Appetite

was regained within two or three days, in severe cases after four or five days.

The attacks were shortened by the Ichthyol treatment ; the patients did not suffer relapses, nor pass through long convalescence. They appeared to emerge from the struggle unweakened.

—Dr. L. HERZ (*Wien. med. Wochenschrift*, 1893, No. 2) employed 2-per-cent. aqueous solution of Ichthyol as a gargle in the Army Hospital at Pilsen in all cases of angina, with the exception of angina follicularis. He not only ordered the patients to gargle often, but also to swallow a portion of the solution, so that it might come in contact with the lower parts of the throat. The Ichthyol did not cause any irritation or inconvenience. The pain was relieved very soon, and often within 24 hours the swelling was so much decreased that the patients could eat. This was a great success, as only severe cases are treated in the hospital.

—Dr. E. SONNENBERG (*Therap. Blätter*, 1894, p. 106) has tried Ichthyol in 40 cases of ordinary sore throat, with excellent results, all the symptoms disappearing in about 24 hours. The patients gargled every 10-15 minutes with a 2- or 3-per-cent. solution.

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